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Lucretius and the Language of Nature

Barnaby Taylor



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Lucretius and the Language of Nature

BARNABY TAYLOR

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For Helen and Edmund

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Contents

<i>Abbreviations</i>	xi
Introduction	1
0.1. The Linguistic Task: <i>Egestas Linguae</i>	2
0.2. The Linguistic Task: <i>Novitas Rerum</i>	8
0.3. Conclusion	14
1. Nature and Culture in the Epicurean Theory of Language	15
1.1. Two Types of Linguistic Naturalism	16
1.2. Human Cultural Development	17
1.3. Names: The Natural Stage	19
1.4. After Nature: <i>Egestas Linguae</i>	27
1.5. Naturalism Weakened	31
1.6. Nature's Norms?	34
1.7. Conclusion	41
2. Lucretius and Epicurus on Metaphor	43
2.1. An Epicurean Dialect	43
2.2. Lucretius on Synecdoche: The Parts of the Soul	46
2.3. Epicurus: The Standard Style	49
2.4. Necessary and Unnecessary Metaphor	52
2.5. The Nameless Element	55
2.6. Metaphor and Preconception	58
2.7. Lucretius on Necessary Metaphor and Metonymy	61
2.8. Lucretius on Unnecessary Metaphor	64
2.9. Conclusion	69
3. Reading Lucretian Metaphor	71
3.1. Unstable Metaphor	72
3.2. Case Study: Philosophy as Conquest	75
3.3. Case Study: Thought as Perception	82
3.4. Personification and Pleasure	88
3.5. <i>Diaphora</i> : Repetition and Control	96
3.6. Disclaimers: 2.865–990	103
3.7. Metaphor and Misprision	105
3.8. Conclusion	112
Appendix: <i>Officia Corporis</i>	112

4. Lucretian Etymologies	116
4.1. The Variety of Etymological Relations	116
4.2. Synchronic Etymological Relations in Lucretius?	119
4.3. Explicit Etymologies in Lucretius	124
4.4. Implicit Etymologies in Lucretius	130
4.5. Implicit Etymologies Involving Greek	134
4.6. Implicit Etymologies for Compounds and Prefixed Words	140
4.7. Conclusion	145
5. The Uses of Greek	147
5.1. Tmesis	147
5.2. Greek Syntax	151
5.3. Greek Words	156
5.4. Code-Switching and Endearment: 4.1160–9	165
5.5. Conclusion	170
6. Calques and Compounds	172
6.1. Calques from Compounds	174
6.2. Calques from Prefixed Words	183
6.3. Conclusion	192
Conclusion	193
<i>Bibliography</i>	195
<i>Index Locorum</i>	213
<i>General Index</i>	221

Abbreviations

DK	Diels, H. and Kranz, W. 1951–2. <i>Die Fragmente der Vorsokratiker</i> , 6th edn, Berlin: Weidmann.
DRN	Lucretius. <i>De Rerum Natura</i> .
GLK	Keil, H. 1957–80. <i>Grammatici Latini</i> , Leipzig: Teubner.
LSJ	Liddell, H. G. and Scott, R. 1968. <i>A Greek-English Lexicon</i> , 9th edn, Oxford: Oxford University Press.
OLD	Glare, P. G. W. (ed.) 1982. <i>Oxford Latin Dictionary</i> , Oxford: Oxford University Press.
R ³	Ribbeck, O. 1897. <i>Tragicorum Romanorum fragmenta tertiis curis</i> , Leipzig: Teubner.
SVF	Arnim, H. F. A. von. 1903–24. <i>Stoicorum veterum fragmenta</i> , Leipzig: Teubner.
TLL	<i>Thesaurus linguae latinae</i> , Leipzig 1900–
Usener	Usener, H. 1887. <i>Epicurea</i> , Leipzig: Teubner.

Introduction

The subject of this book is linguistic creativity in Lucretius' *De Rerum Natura*. I do not seek to cover every aspect of Lucretian language and style,¹ and each of the aspects I do cover could easily sustain a book-length treatment of its own. Still, it remains my hope that the arguments and readings that I offer are sufficient to demonstrate the book's core thesis, which, simply put, is that an understanding of Lucretius' own linguistic theory will help illuminate the extraordinary linguistic creativity and diversity of *DRN*. I use the phrase 'linguistic theory' here in two senses, one broad, one narrow. In the narrow sense, I mean the philosophical theory of language that Lucretius inherited from Epicurus and transferred—not necessarily unchanged—into his own poem. This philosophical theory will be considered in the first two chapters of this book. In the broader sense, I include within the remit of my study other, less philosophical linguistic attitudes and anxieties voiced in the poem, most famously perhaps at 1.136–45, where the vexed issue of *egestas linguae* (poverty of the language) is confronted for the first time.

As will be seen in Chapter 1, an issue of central importance in the Epicurean philosophy of language is naturalism, its nature and extent. Epicurus' history of language includes both a naturalist element, according to which early language was determined by nature, and a conventionalist element, according to which the course of linguistic history is influenced by the free, rational development of new linguistic forms. Epicurus assigns a role in the latter element of this process to 'those with understanding' (οἱ συνειδότες, *Ep. Hdt.* 76). In Chapters 3–6 of this book I will characterize Lucretius (like Epicurus before him) as a

¹ The best overall treatment remains that of Bailey 1947, 1.72–171.

multa novis verbis praesertim cum sit agendum
 propter egestatem linguae et rerum novitatem.
 sed tua me virtus tamen et sperata voluptas 140
 suavis amicitiae quemvis efferre laborem
 suadet et inducit noctes vigilare serenas
 quaerentem dictis quibus et quo carmine demum
 clara tuae possim praepandere lumina menti,
 res quibus occultas penitus convisere possis. 145

Nor does it escape my mind that it is difficult to illuminate the obscure discoveries of the Greeks in Latin verses, especially since one must express many things with new words on account of the poverty of the language and the novelty of the subject matter. But nevertheless your virtue and the longed-for pleasure of your sweet friendship persuades me to undertake any labour, and leads me to stay awake through the clear nights seeking with which words and what song I may at last spread clear lights before your mind, by which you may see deeply into hidden things.

This is rhetoric, its function being to heighten the reader's sense of Lucretius' linguistic achievement as the poem unfolds. There is no suggestion that the product of Lucretius' labours, or the language in which it is expressed, is somehow inferior. To the contrary, one aspect of the poem's triumph will be its success in the face of (allegedly) difficult linguistic odds. For this rhetoric to function, however, the difficulty Lucretius faces must be, if not real, then at least plausible in the eyes of his readership. That this was so is not hard to demonstrate.

A comparison with contemporary reflections on the Latin language shows that Lucretius' appeal to *egestas linguae* at 1.139 (as well as to *patrii sermonis egestas* at 1.832 and 3.260) was not made in a vacuum.⁴ A number of Cicero's philosophical proems, written in the decade following the composition of *De Rerum Natura*, are constructed as responses to controversies concerning the writing of philosophy in Latin, and the charge against philosophical Latin which Cicero is most keen to rebut (and with which, as we shall see, Lucretius is also concerned) concerns a purported deficiency in the Latin lexicon:

complures enim Graecis institutionibus eruditi ea quae didicerant
 cum civibus suis communicare non poterant quod illa quae a Graecis

⁴ Fundamental here is Fögen 2000, esp. 61–91; see also Farrell 2001, 28–51.

accepissent Latine dici posse diffiderent; quo in genere tantum profecisse videmur ut a Graecis ne verborum quidem copia vinceremur.

N.D. 1.8

Many of those who are learned in the Greek arts were not able to share what they had learned with their own citizens, because they did not believe it was possible to express in Latin those things they had received from the Greeks; in which matter we seem to have made so much progress that we are not conquered by the Greeks even as regards the richness of our vocabulary.

saepe diximus, et quidem cum aliqua querela non Graecorum modo sed eorum etiam qui se Graecos magis quam nostros haberi volunt, nos non modo non vinci a Graecis verborum copia sed esse in ea etiam superiores. *Fin.* 3.5

I have often said—and indeed have come up against some objections not only from Greeks but also from those who wish themselves to be considered more Greek than Roman—not only that we are not conquered by the Greeks in the richness of our vocabulary, but that in that matter we are even superior to them.

The contemporary suspicion about the ability of the Latin language to provide sufficient lexical resources for the writing of philosophy was grounded in at least two different ways. The first was based on the history of philosophical literature at Rome. Lacking as it did a long history of philosophical writing (see Lucretius' *rerum novitatem* at 1.139), there had been no chance for the Latin language to develop a working vocabulary for basic philosophical concepts,⁵ which in turn necessitated the coining of new words and the extending of the semantic ranges of existing words.⁶ This may be the problem implied in Lucretius' treatment of *homoeomeria* at 1.830–3: *nunc et*

⁵ With the exception of those Greek terms which had already been lexicalized into Latin, taking on a new morphology and thus being naturalized. See, for example, the caveat at Cic. *Fin.* 3.5:

quamquam ea verba quibus instituto veterum utimur pro Latinis, ut ipsa philosophia, ut rhetorica, dialectica, grammatica, geometria, musica, quamquam Latine ea dici poterant, tamen, quoniam usu percepta sunt, nostra ducamus.

Even though those words which we use in place of Latin words by the established practice of our ancestors—such as 'philosophy' itself, 'rhetoric', 'dialectic', 'grammar', 'geometry', 'music'—even though these words could have been expressed in Latin, nevertheless, since they have been adopted through use, let us consider them our own.

⁶ i.e. metaphor; see Quint. *Inst.* 12.10.34 on the necessity of using metaphor and paraphrase in the light of the *paupertas* of Latin.

Anaxagorae scrutemur homoeomerian | quam Grai memorant nec nostra dicere lingua | concedit nobis patrii sermonis egestas, | sed tamen ipsam rem facilest exponere verbis ('now let us also consider the *homoeomeria* of Anaxagoras; the Greeks call it this, while the poverty of our mother tongue prevents it being named in our own language; it is easy nevertheless to express the matter itself in words'). The lack of a ready-made Latin term equivalent to Anaxagorean *homoeomeria* means that Lucretius must describe the theory in paraphrase (833: *verbis*) rather than with a single technical term. As at 1.136–45, where the complaint of *egestas linguae* provided an opportunity for Lucretius' own aggrandisement, there is a certain amount of rhetoric here. As Sedley and others have sought to establish, Lucretius' decision to keep the term '*homoeomeria*' untranslated both adds a linguistic dimension to his rejection of Anaxagoras' theory,⁷ and implies a certain kind of disfavour as regards the use of Greek technical language.⁸

The second way in which such concerns may have been grounded for Lucretius has to do with the character of the Latin language itself.⁹ The fact, for example, that Latin lacks a full complement of participial forms (both entire types, such as the present passive, and token forms, such as a participle for *esse*) was taken by Lucretius' contemporaries to mean that Latin enjoys less versatility than Greek when dealing with abstract philosophical concepts.¹⁰ In Chapter 6, I will discuss the

⁷ See Wardy 1988, 126.

⁸ See Sedley 1998, 48 and Farrell 2001, 48–50. Unlike Sedley, for whom *homoeomeria* is deliberately alien and ungainly, Farrell stresses the contrast between the mellifluity of *homoeomeria* and the 'unpretentious', 'prosaic' Latin in the following lines.

⁹ See Farrell 2001, 40.

¹⁰ For contemporary comment on the absence of whole types, see esp. Varro, *L.* 8.58, on the absence of past active participles and present and future passive participles. While some present participles in Latin can bear passive meaning (e.g. *amantissimus*; see Wackernagel 1920–4, 1.286 = 2009, 358), such forms are of limited use to the philosopher. Sallust occasionally uses present active participles in the place of the past passive (e.g. *Iug.* 113 *haec Maurus secum ipse diu volvens tandem promisit*; see Hofmann and Szantyr 1965, 387), but we do not encounter any such thing in Lucretius. As for token forms of specific verbs, an awareness of the lack of a present participle for *esse* led early grammarians to suggest *ens* on the principle of analogy: Caesar *De Analogia* fr. 31 Garcea, with Garcea 2012, 245–9. Quintilian's discussion of the neologisms of a certain 'Sergius Flavius' at *Inst.* 8.3.33 shows that he understands the invention of new forms of *esse* to have been a direct response to, and intended cure for, *paupertas sermonis*, quoting the word *essentia* (also attributed by Quintilian to 'Plautus' at 2.14.2). Alongside *essentia*, the transmitted text gives *ut quae ens*, which Regius plausibly emended to *ut ens*; for discussion of the textual difficulties, and the

formation of compounds in *DRN*. Not only was Latin understood to be less productive of compounds than Greek, but those Latin compounds that did exist were often less versatile than their Greek equivalents: while Greek, for example, could have both active *πυρφόρος* and passive *πύρφορος*, Latin was limited to active *ignifer*.¹¹ Given the importance that the production of Latin compounds had for Lucretian vocabulary formation, this would have been another distinction between Latin and Greek which Lucretius felt keenly.

The other *reprehensiones* (*Fin.* 1.1) that Cicero claims to have run up against in his decision to write Latin philosophy include doubts about how great a demand there was for philosophical literature not written in Greek.¹² At *Academica Posteriora* 1.4 Varro responds to Cicero's declared project (1.3) *philosophiam veterem illam a Socrate ortam Latinis litteris illustrare* ('to illuminate,¹³ in Latin, that ancient philosophy that arose from Socrates'):

nam cum philosophiam viderem diligentissime Graecis litteris explicatam, existimavi, si qui de nostris eius studio tenerentur, si essent Graecis doctrinis eruditi, Graeca potius quam nostra lecturos; sin a Graecorum artibus et disciplinis abhorrent, ne haec quidem curaturos quae sine eruditione Graeca intellegi non possunt; itaque ea nolui scribere quae nec indocti intellegere possent nec docti legere curarent.

For since I saw that philosophy had been most carefully explained in Greek, I came to the view that any Romans who were drawn to its study would, if they were already learned in Greek doctrine, sooner read Greek than Roman texts, but that if they spurned the sciences and doctrines of the Greeks, they would by no means have interest in those things which cannot be understood without Greek learning; and so I had no desire to write such things that neither the uneducated could understand nor the learned would care to read.

identity of 'Sergius Flavius' (= Sergius Plautus?), see Reinhardt and Winterbottom 2006, 219–21; also Garcea 2012, 247 n. 319. Seneca, *Ep.* 58.7 defends the use of relative clauses to translate participles that are missing in Latin; this was perhaps the difficulty Caesar's *ens* was intended to solve; cf. Priscian *GLK* 3.239. For further examples, see Nägelsbach and Müller 1905, 412–4.

¹¹ For the distinction in Greek, see Rijksbaron 1991, 5–6.

¹² See Fögen 2000, 79–81.

¹³ Compare the same metaphor at *DRN* 1.136–7 *Graiorum obscura reperta | difficile inlustrare Latinis versibus esse*, and see also *Fin.* 2.15, *Tusc.* 1.1.

Those who know Greek would not care to read philosophy in Latin,¹⁴ and those who do not know Greek would not care to read philosophy at all. From the perspective of the character Varro, here, the first premiss of this argument is not mere cultural snobbery on the part of Hellenized Romans (although something like that is certainly present); rather, learning philosophy directly from the source ensures a higher quality of exposure and education: *sed meos amicos in quibus est studium in Graeciam mitto, id est ad Graecos ire iubeo, ut ex fontibus potius hauriant quam rivulos consecretentur* ('But I send my friends who possess a keen interest to Greece, that is, I tell them to visit the Greeks, so that they might drink from the source rather than pursue the rivulets', Ac. 1.8).

Cicero's response is simply to deny the truth of Varro's premisses, relying on comparative evidence drawn from other cultural domains in which Romans have had some success. Framing the disagreement in the language of the courtroom (*causam autem probabilem tu quidem affers*, 'but indeed you make a reasonable case'), he replies to Varro at Ac. 1.10: *sed eam mihi non sane probas. immo vero et haec qui illa non poterunt et qui Graeca poterunt non contemnent sua. quid enim causae est cur poetas Latinos Graecis litteris eruditi legant, philosophos non legant?* ('But you don't quite prove your point to me. To the contrary, those who cannot read Greek will read these books, and those who can read Greek will not scorn the books of their own people. For why would those who know Greek read Latin poets but not Latin philosophers?') One year later, in the proem to *De Officiis*, Cicero revisits this theme of the dual evangelical benefit of Latin philosophy, stating that with his philosophical works he has brought benefit (*adiumentum*) to learned and unlearned alike (*Off.* 1.1).¹⁵ So, for Cicero, not only are claims about the *paupertas verborum Latinorum* false in any case (*Fin.* 1.10 *Latinam linguam . . . locupletiores etiam esse quam Graecam*, 'the Latin language is even

¹⁴ Cf. *Fin.* 1.1 *erunt etiam et ii quidem eruditi Graecis litteris, contemnentes Latinas, qui se dicant in Graecis legendis operam malle consumere* ('There will also be those who are learned in Greek and scornful of Latin, who will say that they would prefer to devote their energies to the reading of Greek').

¹⁵ Dyck 1996 ad loc. takes the shift in tone between the defensive proems of *Fin.* (March–June 45) and the confidence of *Off.* (probably September–December 44) to indicate that 'the reception of his philosophical books in the interim has evidently changed [Cicero's] position'.

richer than the Greek';¹⁶ *Fin.* 3.5; *N.D.* 1.8),¹⁷ but philosophy written in Latin can actually have a positive effect on both high- and middle-brow Roman culture. In his (nationalist) response to the supposed problem of *egestas linguae*, Cicero can thus be contrasted with Lucretius, who makes no attempt to deny the premiss that Latin is somehow lacking, and instead promises to rely on hard work¹⁸ and sleepless nights¹⁹ in order to find the right *dicta* and *carmen* for his task (1.140–5, on which, see pp. 11–14). Lucretius, who frames his poetic project as an attempt to win the *amicitia* of Memmius (1.140–2), has a clear rhetorical motive to stress the difficulty of his task and, therefore, also to emphasize the natural poverty of his mother tongue.

The anxieties that Lucretius voices about the power and resources of his own language, then, may be understood in the context of contemporary concerns about the value of Latin philosophical literature as compared with Greek. It is no coincidence that such anxieties arose at a time of intense activity and production within Roman intellectual culture. Lucretius' response to the alleged problem is rather closer to that advised by Quintilian (n. 17) than to that adopted by Cicero: a lack of lexical resources in the Latin language only serves to make it all the more important that the right expressions are chosen. This is Lucretius as linguistic trailblazer, heralding here, towards the start of his poem, his intent to expand and explore the resources and potential of Latin as a language of enlightenment.

0.2. THE LINGUISTIC TASK: *NOVITAS RERUM*

Alongside the supposed poverty of the language, says Lucretius, the *novitas* of his subject matter also serves to make necessary linguistic

¹⁶ On the wealth metaphor here, see the analysis of Farrell 2001, 37–8.

¹⁷ Fögen 2000, 88–91. One may compare Cicero's flat denial that Latin is lacking in lexical resources with the attitude of Quintilian, who accepts the premiss and relies on the sheer creativity of Latin authors to circumvent the problem: *nam quo minus adiuvat sermo, rerum inventionem pugnandum est. sensus sublimes varique eruantur: permovendi omnes adfectus erunt, oratio translationum nitore inluminanda.* ('For the less help our language gives us, the more we must fight by means of invention. Let sublime and varied thought be unearthed; all emotions must be stirred, and speech must be illuminated by the brightness of our metaphors', *Inst.* 12.10.36).

¹⁸ For philosophical translation as *labor*, see also Cic. *Fin.* 1.1 *hic noster labor in varias reprehensiones incurreret* ('this labour of mine ran up against various reprimands').

¹⁹ For the motif of the sleepless working poet, see Fögen 2000, 65, and pp. 11–14.

creativity via the use of *nova verba* (1.138). *Novitas* here is only a relative term: the subject matter under discussion (*Graiorum reperta*) is not completely new, but only new in the context of Latin literature,²⁰ as well as being unfamiliar²¹ to Lucretius' addressee.²² This focus on novelty may be compared to those passages of *DRN* where Lucretius draws on the metaphors of Alexandrian (and especially Callimachean)²³ poetics in order to characterize his own creative imitation of Epicurean sources. Consider, for example, 1.926–30 (= 4.1–5):

avia Pieridum peragro loca nullius ante
trita solo. iuvat integros accedere fontis
atque haurire, iuvatque novos decerpere flores
insignemque meo capiti petere inde coronam
unde prius nulli velarint tempora Musae. 1.930 = 4.5

I travel the pathless places of the Pierides, trodden by no one's foot before.
I delight in approaching and drinking from untouched springs, I delight in
plucking new flowers and seeking a famous garland for my head from that
place whence the Muses have veiled the temples of no man before.

The Callimachean echoes in *loca nullius ante* | *trita solo* (drawing on the *Aetia* prologue) and *integros accedere fontis* | *atque haurire* (drawing on *Epigram* 28 Pfeiffer and the end of the *Hymn to Apollo*) have been treated in great depth by a range of scholars, and I will not spend time on them here.²⁴ The plucking of *novos flores* for a *corona* looks back, of course, to the *corona* of Ennius, as described at 1.117–18,²⁵ and has well-known Greek precedents in Hellenistic epigram (Antipater of Sidon, *A.P.* 7.14.4) and Euripidean tragedy

²⁰ On the interpretation of Lucretius' claim at 5.336–7 that *primus cum primis ipse repertus* | *nunc ego sum in patrias qui possim vertere voces*, and its significance for our understanding of his milieu, see now Eckerman 2013.

²¹ *OLD* s.v. *novitas* 2a.

²² In addition to the meaning 'novelty of subject matter', *novitas rerum* may bear connotations of revolution (i.e. *novae res*; see *OLD* s.v. *novus* 10), which suits the militarized portrayal of Epicurus at 1.66–77, to be discussed at pp. 79–82.

²³ For Lucretius and Callimachus, Brown 1982 is fundamental; see also Kenney 1970; Donohue 1993; Knox 1999.

²⁴ Kenney 1970, 369–70; Brown 1982, 80–2; Donohue 1993, 40–8; Knox 1999; Volk 2002, 86–8.

²⁵ Clay 1983, 44; Gale 1994, 108.

a poetic garland.²⁹ The idea of selection is reinforced via *libant* at 3.11 (Marullus' correction for the transmitted *limant*), which, as well as meaning 'taste', can bear the meaning 'make a choice selection of'.³⁰ At the end of his introductory poem Meleager characterizes it as ἡδυεπής ('sweet-speaking'), a word echoed in the Latin calque *suavidicus*, used by Lucretius (and only by Lucretius) of his own poetry (4.180, 909);³¹ and just like Meleager, who dedicated his *Garland* to φίλοις ἐμοῖσι 'my friends',³² Lucretius' poetic transformation of Epicurus' *chartae* was inspired by the longed-for *amicitia* of Memmius (1.141).

In the lines immediately following the mention of *novitas rerum* at 1.139 we find a reworking of another Callimachean image. The relevant lines are these:

sed tua me virtus tamen et sperata voluptas	1.140
suavis amicitiae quemvis efferre laborem	
suadet et inducit noctes vigilare serenas	
quaerentem dictis quibus et quo carmine demum	
clara tuae possim praepandere lumina menti,	
res quibus occultas penitus convisere possis.	145

But nevertheless your virtue and the longed-for pleasure of your sweet friendship persuades me to undertake any labour, and leads me to stay awake through the clear nights seeking with which words and what song I may at last spread clear lights before your mind, by which you may see deeply into hidden things.

The *labor* of poetic composition is itself a familiar Alexandrian motif (see, e.g., Callimachus, *Epigram* 6.1 Pfeiffer, with further references at Brown 1982, 94 n. 38), but *labor* here means something slightly different from the Callimachean *πόνος*. Lucretius' task is not mere composition (as in Callimachus' epigram), but translation (cf. Cic. *Fin.* 1.1 *hic noster labor*). By transferring the Callimachean motif from a monolingual to a bilingual context, Lucretius transforms

²⁹ An image which aligns well with the weaving imagery (*pertexere dictis*) we encounter at *DRN* 1.418 and 6.42; for *πλέκω* and cognates in Meleager's proem, see, e.g., ἐμπλέξας (5); πλέξας (9); σύμπλεκτον (18).

³⁰ *OLD* s.v. 5; see Kenney 2014, ad loc.

³¹ See further, p. 182; see Brown 1982, 82 for the possible influence of *A.P.* 7.11 (Asclepiades) at *DRN* 4.180 and 909.

³² *A.P.* 4.1.57; at line 3, as well as in the *coronis*-poem (*A.P.* 12.257.5), a certain Diocles is singled out.

and redefines the *labor* in question. Of still greater importance to this passage³³ is Callimachus' famous *Epigram* 27 Pfeiffer, in praise of Aratus, which ends:

χαίρετε λεπταί
ρήσιες, Ἀρήτου σύντονος ἀγρυπνίη.³⁴

Hail subtle discourses, intense sleeplessness of Aratus.

Aratus' *Phaenomena* are characterized as the fruit of sleepless nights. Night has a dual function for Aratus in the epigram: it is both the time when he writes his poems and the time at which he observes celestial phenomena. Lucretius' transformative treatment of this imagery at 1.140–5 assimilates the picture of the sleepless poet into his own systematic imagery of darkness and philosophical illumination (*clara tuae possim praepandere lumina menti*), and the irony of night-time reflection leading to illumination is nicely captured by *noctes serenas*.³⁵ Furthermore, Lucretius' appropriation of the wakefulness image immediately following lines 1.136–9 serves once again to change the nature of the task at hand: what was a monolingual task for Aratus—producing a Hellenistic treatment on a Hesiodic theme—becomes a bilingual task for Lucretius, as he seeks out and creates Latin words and verses to fit original Greek subject matter. So, as with the case of *labor*, Callimachean poetic metaphors are transformed by their placement in a bilingual context. It is likely that this epigram was familiar to Lucretius not only via the original Greek text but also via the (probably incomplete)³⁶ Latin reimagining of Gaius Helvius Cinna (fr. 11 Blänsdorf), comparison with which is instructive:

haec tibi Arateis multum vigilata lucernis
carmina, quis ignis novimus aërios,
levis in aridulo malvae descripta libello
Prusiaca vexi munera navicula.

³³ See Brown 1982, 83; Gale 1994, 107 n. 41; Kronenberg 2018, 52. Henkel 2011, 180–2 argues plausibly for a simultaneous allusion here to Leonidas' epigram in praise of the work of Aratus (*A.P.* 9.25).

³⁴ σύντονος ἀγρυπνίη *codd.* : σύμβολον ἀγρυπνίης *Ruhnken*. In defence of the paradoxos, see Cameron 1972; see further Stewart 2008 (suggesting σύντομος).

³⁵ For *serenus* used of philosophical illumination in *DRN*, compare 2.8 *templa serena* and see Gale 2000, 153 n. 30.

³⁶ Thus Hollis 2007, 43.

This poem, product of much wakefulness under Aratean lamps, by which we know the fires in the sky, I have brought to you as a gift in a boat of Prusias, written on the dry bark of a smooth mallow.

Like Lucretius, Cinna has applied the theme of friendship and the gift to his reception of Callimachus' epigram.³⁷ For Cinna, however, the gift he brings is the work of another poet (and a Greek poet, at that). Lucretius' transformation of the Callimachean image is more thoroughgoing: for him the work (and the gift) is not another's, but his own, and the dual role of darkness and light has, as we have seen, been reimagined to fit his own metaphorical system. The date of Cinna's epigram, as well as the identity of *tibi*, is unknown, but the mention of Bithynia (of which Prusias was once king) suggests two plausible scenarios. Catullus 10 is most easily interpreted³⁸ as implying that Cinna was on Memmius' staff in Bithynia in 57/6, and the Suda relates that Cinna was responsible for bringing Parthenius to Italy after the Romans had warred down (κατεπολέμησαν) Mithridates. The date of Parthenius' arrival at Rome is contentious,³⁹ but Mithridates is known to have finally been defeated in 66/65.⁴⁰ Courtney (2003, 222) assumes, therefore, that Cinna was in Bithynia on two separate occasions: an earlier visit during the Mithridatic war, after which he brought back Parthenius, and on the staff of Memmius in 57/6. If this is correct, then we have two different possible dates for the setting of the Aratus epigram, both of which are early enough to allow for an influence to have been exerted on Lucretius.

Similarities between Cinna's epigram and Crinagoras A.P. 9.545, an epigram dedicating a copy of Callimachus' *Hecale* to the young Marcellus (on which, see Hollis 2007, 43) support the notion that we are dealing here with a gift poem addressed to a patron or social superior (who, Hollis assumes, would have been named by Cinna in the lines following the fragment we possess). It is clear how *DRN* 1.136–45 may function as a competitive response to such a gift poem: Lucretius offers his patron not merely the work of another, but his own work, written in his own language and produced for the sake of

³⁷ On Cinna's poem, see especially the superb treatment of Hinds 2001, 224–46.

³⁸ So Hutchinson 2001, 158–9 n. 20; *pace* Wiseman 1974, 48.

³⁹ Lightfoot (1999, 11–12) cites and weighs the evidence.

⁴⁰ So Pfeiffer 1943, 30; Wiseman 1974, 48.

his own friendship with his patron.⁴¹ Whereas in Cinna's case his relationship with the addressee provided motivation for the gift of the text of a poem, in Lucretius' case that friendship gave rise to a poem's actual production.⁴² In fact, if we accept, with Courtney,⁴³ an early date for the writing of Cinna's epigram, we may be tempted to postulate Memmius himself as its addressee. Cinna's connection to Memmius is well established, and Memmius' appreciation for Greek literature is mentioned by Cicero (*Brutus* 247). *DRN* 1.136–45, then, could be understood as a competitive response to Cinna's own dedicatory epigram to Memmius.

0.3. CONCLUSION

At the end of his first great proem, Lucretius reflects on his linguistic task, stressing above all else the need for lexical creativity and innovation. These reflections, despite having clear rhetorical motives (being located as they are in an appeal for the *amicitia* of Memmius), are grounded in real contemporary concerns about the resources and power of the Latin language. At the heart of Lucretius' linguistic project is his relationship to a set of Greek texts—the *chartae* of Epicurus—elements of which he will, over the course of *DRN*, gather together and transform, both via the act of translation and via their novel expression in hexameter verse. These twin concerns—*egestas* of language and novelty of subject matter—provide the initial impetus and motivation for the project of this book, which aims to describe and explain some aspects of linguistic creativity in *DRN*. Further motivation is provided by the Epicurean theory of language, to which I now turn.

⁴¹ For analysis of the type of friendship described at 141, see esp. Holford-Strevens 2002, 19–21, arguing for an interpretation according to which Lucretius describes himself as Memmius' social inferior.

⁴² A distinction nicely captured by the ambiguity of *efferre* at *DRN* 1.141, which can mean both 'bring' and 'produce'.

⁴³ In an unpublished paper cited at Courtney 2003, 222.

Nature and Culture in the Epicurean Theory of Language

The purpose of this chapter is to establish several central features of the Epicurean theory of language in order to inform the later discussions of the book. In the account of Epicurean naturalism given below I draw on, and hope to supplement, a number of fundamental scholarly treatments published on this topic in the last three decades.¹ In addition to outlining the features of Epicurean naturalism, another aim of this chapter will be to emphasize its limitations: while naturalism is, as I will suggest, highly relevant to a full understanding of Lucretius' linguistic creativity, it is only part of the story. The role of naturalism in the Epicurean linguistic theory was primarily historical, and while traces of this historical naturalism will have survived into the contemporary language, naturalism comes to constitute only one part of a much larger linguistic model—a model which includes space for the arbitrary and conventional development of language under the sway of human choice and reason. This conventional element of the Epicurean theory is, I will suggest, particularly relevant to our understanding of Lucretius' creative linguistic responses to the problem of *egestas linguae*.

¹ Fundamental are Brunschwig 1994, Everson 1994, and Atherton 2005 and 2009. The Epicurean theory of language has been the object of intensive study in the last few decades: see, in addition to the above, especially Asmis 1984, 19–80; Barnes 1996; Fine 2014, 226–56; Glidden 1985; Goldschmidt 1978; Hammerstaedt 1996; Konstan 1973, 44–51; Long 1971; Long and Sedley 1987, 1.97–101; 2.98–104; Mackey 2015; Milanese 1989, 11–65; Morel 2008; Reinhardt 2008; Schrijvers 1974; Sedley 1973; Verlinsky 2005.

1.1. TWO TYPES OF LINGUISTIC NATURALISM

Several ancient *testimonia* identify Epicurus as a linguistic naturalist,² and Lucretius' account of the origins of language at 5.1028–90 confirms that he accepted this element of Epicurean doctrine. Naturalist theories of language were many and varied in the ancient world, as was understood by those authors who felt the need to construct a typology.³ We may present Epicurus' own linguistic theory as featuring a combination of two distinct types of naturalism, 'functional' and 'referential'.⁴ A functional theory of linguistic naturalism is a theory about human behaviour; it states that 'language use is a function of human nature'.⁵ The label is borrowed from Proclus, who includes functional naturalism as the second of four types within his typology.⁶ In one of its senses, says Proclus, the term 'natural' qualifies the activities and powers of animals and plants;⁷ according to functional linguistic naturalism, then, language is a natural power or activity of human beings—something human beings do naturally. The example Proclus gives of a functional theory of linguistic naturalism is that of Epicurus, who 'thought that names are natural like the principal functions of human nature: as with voice and sight, seeing and hearing, so too with naming. Thus the name is natural as a function of human nature'.⁸ Epicurus was by no means the only functional naturalist in the ancient world, but Proclus' citation of his theory in the typology at *In Cratylum* 17 suggests that Epicurean functional naturalism was seen as representative of its type.

A referential theory of linguistic naturalism is a theory about semantics; it states that there can exist a natural connection, or fit,

² Procl. *In Cra.* 17 (335 Usener); Origen, *C. Cels.* 1.24 (334 Usener); Demetr. Lac. *PHerc.* 1012 col. 67 Puglia (quoted in Section 1.5 at p. 32).

³ Procl. *In Cra.* 17 (335 Usener); Ammon. *In Int.* 34.10–35.13 (indebted to Proclus). See also Sext. Emp. *M.* 1.142–3 and Demetr. Lac. *P.Herc.* 1012 col. 67.1–10 Puglia, each of whom lists various possible meanings of the term 'natural'. For an introduction to the varieties of ancient linguistic naturalism, see Pezzini and Taylor 2019.

⁴ A distinction made and elaborated at Pezzini and Taylor 2019, 5–9.

⁵ Pezzini and Taylor 2019, 6.

⁶ Accepting Usener's emendation (see n. 8 below).

⁷ *In Cra.* 17 <ὡς> αἱ τούτων [i.e. animals and plants] ἐνέργειαι καὶ δυνάμεις.

⁸ *In Cra.* 17 (335 Usener): ὁ μὲν οὖν Ἐπίκουρος κατὰ τὸ δεύτερον [Usener : πρώτον codd.] σημαίνονμενον ᾧετο φύσει εἶναι τὰ ὀνόματα, ὡς ἔργα φύσεως προηγούμενα, ὡς τὴν φωνὴν καὶ τὴν ὄρασιν, καὶ ὡς τὸ ὁρᾶν καὶ ἀκοῦειν οὕτως καὶ τὸ ὀνομάζειν, ὥστε καὶ τὸ ὄνομα φύσει εἶναι ὡς ἔργον φύσεως. (Translation adapted from Duvick 2007.)

between a name and its referent.⁹ The canonical example is the theory defended by Cratylus in Plato's dialogue, according to whom 'there is a natural correctness of names for each thing',¹⁰ and 'names belong to objects by nature'.¹¹ For Cratylus, this natural connection between names and referents is one of resemblance: the elements of a name may (and, indeed, should) resemble or imitate the elements of its referent's nature.¹² This form of resemblance naturalism went on to influence the doctrine of the Stoics, according to whom, Origen tell us, 'the first utterances imitate their referents'.¹³ As we shall see, however, referential naturalism need not be limited to theories about resemblance.

Epicurus' linguistic theory featured a combination of functional and referential naturalisms. Epicurus achieved this combination by developing a unique functional account of language use according to which natural linguistic behaviour among early humans fixed the references of the first names. Epicurus' referential naturalism, then, was grounded in his functional naturalism. Allow me now to work through the different stages of the theory, as elaborated by Epicurus himself.

1.2. HUMAN CULTURAL DEVELOPMENT

At *Ep. Hdt.* 75, Epicurus gives a general account of human cultural development:¹⁴

ἀλλὰ μὴν ὑποληπτέον καὶ τὴν φύσιν πολλὰ καὶ παντοῖα ὑπὸ αὐτῶν τῶν πραγμάτων διδαχθῆναι τε καὶ ἀναγκασθῆναι, τὸν δὲ λογισμὸν τὰ ὑπὸ ταύτης παρεγγυηθέντα ὕστερον ἐπακριβοῦν καὶ προσεξευρίσκειν ἐν μέν τισι θάττον, ἐν δέ τισι βραδύτερον καὶ ἐν μέν τισι περιόδοις καὶ χρόνοις ἀπὸ τῶν <ιδίων χρειῶν κατὰ μείζους ἐπιδόσεις>¹⁵ ἐν δέ τισι κατ' ἐλάττους.

⁹ Pezzini and Taylor 2019, 5.

¹⁰ *Cra.* 384a: ὀνόματος ὀρθότητα εἶναι ἐκάστω τῶν ὄντων φύσει πεφυκυῖαν.

¹¹ *Cra.* 390d: φύσει τὰ ὀνόματα εἶναι τοῖς πράγμασι.

¹² *Cra.* 422d–424a; 430a–431c.

¹³ *C. Cels.* 1.24 (SVF 2.146): μιμουμένων τῶν πρώτων φωνῶν τὰ πράγματα. On the meaning of τὰ πράγματα, see p. 18.

¹⁴ On which account, see esp. Brunschwig 1994, 22–5.

¹⁵ ἀπὸ τῶν <ιδίων χρειῶν κατὰ μείζους ἐπιδόσεις> *suppl.* Sedley (1973, 17) : ἀπὸ τῶν <κατὰ μείζους ἐπιδόσεις> *suppl.* Leopold (1915, 276) : ἀπὸ τῶν ἀπὸ τοῦ ἀπείρου *codd.*

We must suppose that even nature was taught and constrained in many and various ways by the things themselves, and that, later on, reason made more accurate and augmented that which nature had handed down, faster among some people, slower among others, <by greater leaps> in some periods and ages, owing to <individual needs>, and by smaller leaps in others.

Human cultural development, says Epicurus, occurred in two stages. The first stage featured an interaction between nature (here understood primarily as human nature)¹⁶ and τὰ πράγματα. In Epicurus, the phrase ‘τὰ πράγματα’ can refer both to things in the external world of which human beings enjoy perceptual experience,¹⁷ and to the states of affairs or circumstances in which the things of the world, concrete and abstract, are configured.¹⁸ The term ‘πρᾶγμα’ is also used, both in Epicurus and elsewhere, in linguistic contexts to denote the referent of a word.¹⁹ The interaction, during the first stage, between human nature and πράγματα is characterized by Epicurus in two ways: as a type of training (διδασκάζειν) and as a form of compulsion (ἀναγκασθῆναι).

Later, human nature passed down the products of the interactions of the first stage for reason to augment and render more accurate. This was the second stage of cultural development. ‘Reason’ (‘λογισμός’) refers to the set of higher cognitive faculties that, for Epicureans, were of central importance to the ordering of happy human lives (*KD* 16; *Ep. Men.* 132).²⁰ Given that reason is not assigned a role in the process until the second stage of development, we may assume that humans during the first stage had not yet developed full rationality.

Epicurus offers no detail on the shift from unreason to reason among early humans. Given Annas’s demonstration that, for Epicureans, to possess rationality is to possess a ‘cluster’ of distinct, learnable

¹⁶ That we are dealing here with human nature is confirmed by the phrase τὰς φύσεις τῶν ἀνθρώπων in the following sentence of Epicurus’ text, to be quoted and discussed in Section 1.3 at pp. 19–20; see Mackey 2015, 70 n.26.

¹⁷ *Ep. Hdt.* 39, 49, 53.

¹⁸ *KD* 20, 37, 38.

¹⁹ In Epicurus: *Nat.* 28 fr. 13 col. 2.1 inf. Sedley; fr. 13 col. 3.9 sup. Sedley. Elsewhere: Pl. *Cra. passim* (e.g. 390e, 393d, 423a, 430b, 431d, 432e, 433b, 439a); Arist. *Soph. El.* 175a, 177a, 178a (with Modrak 2001, 20); Origen, *C. Cels.* 1.24 (334 Usener); Diog. Laert. 10.31.

²⁰ See esp. Annas 1993, 67–9, who (69) states that the Epicurean rational soul ‘is not a single thing but a cluster of capacities’; see also Sorabji 1993, 28–9.

capacities, then the movement towards rationality in early humans should have been gradual, rather than sudden. The picture we are given at *Ep. Hdt.* 75, then, is overly schematized, presenting what would have been a gradual development of human cognitive capacities as a two-stage process. As time went on, early humans would have gained more and more of the capacities which, taken together, would eventually come to constitute full rationality. This process would have brought about a gradual shift from necessitated, compulsive behaviour to rationally controlled, self-directed behaviour.²¹

1.3. NAMES: THE NATURAL STAGE

Epicurus continues (*Ep. Hdt.* 75):

ὅθεν καὶ τὰ ὀνόματα ἐξ ἀρχῆς μὴ θέσει γενέσθαι, ἀλλ' αὐτὰς τὰς φύσεις τῶν ἀνθρώπων καθ' ἕκαστα ἔθνη ἴδια πασχούσας πάθη καὶ ἴδια λαμβανούσας φαντάσματα ἰδίως τὸν αἶρα ἐκπέμπειν στελλόμενον ὑφ' ἐκάστων τῶν παθῶν καὶ τῶν φαντασμάτων, ὥς ἂν ποτε καὶ ἡ παρὰ τοὺς τόπους τῶν ἐθνῶν διαφορά εἴη.

For which reason we must suppose that names too did not originally come into being by imposition, but that the very natures of men, according to each people, experienced particular feelings and received particular sensory impressions, and expelled the breath in a particular way, shaped by each feeling and sensory impression, likewise according to the variation between the peoples produced by the places they lived in.

The phylogeny of language (that is, the development of linguistic behaviour in the history of the species) is here introduced as an example of the many and varied developments (πολλὰ καὶ παντοῖα) that began during the first, natural stage.²² In Epicurus' general account of human cultural development, human nature interacted

²¹ Hermarchus' account of the development of homicide law (fr. 34.10 Longo Auricchio (= Porphyry, *On Abstinence* 1.10 = Long and Sedley 1987, 22N), on which, see Vander Waerdt 1988) supports this gradualist model: the first steps towards the prevention of homicide were taken after certain men used irrational memory (ἄλογος μνήμη) to establish that it would be mutually beneficial; only later, however, once men had developed the full power of reasoning (ἐπιλογισμός), was legislation developed to replace what was until then the mere practice of convention.

²² On the significance of Epicurus' choice of example here, see Brunschwig 1994, 24.

with τὰ πράγματα during the first stage. Here, Epicurus reveals the nature of that interaction in the case of linguistic phylogeny: early humans interacted with τὰ πράγματα via feelings (πάθη) and perceptions (φαντάσματα); the first linguistic utterances were the result.

The first stage of linguistic phylogeny, as described here, features a compulsive, ‘stimulus–response’²³ model of language use. In early history, according to Epicurus, humans were naturally disposed to utter certain sound patterns compulsively, in response to certain sensory stimuli. Lucretius’ use of the verb *subegit* in his account of the origins of language at *DRN* 5.1028–9 demonstrates that he also understood linguistic behaviour during the first stage to have occurred under natural compulsion: *at varios linguae sonitus natura subegit | mittere*—‘But nature’²⁴ compelled them to emit the various sounds of the tongue.’

The names of the first stage are said by Epicurus to have been uttered ‘ιδίως’, which adverb we may interpret, following the arguments of Jacques Brunschwig, as denoting a relationship of correspondence between a particular uttered sound pattern and a particular sensory stimulus (and so, by extension, between a particular uttered sound pattern and a particular thing or type of thing).²⁵

The compulsive stimulus–response model not only determined particular pairings of uttered sound patterns and named things, but also determined under which circumstances a thing was named; early humans, on this model, were not free to name things as and when they pleased. This point is driven home by Proclus, who describes Epicurus’ account as involving men who imposed names ‘not knowingly, but driven by nature, as those who cough, sneeze, bellow, howl, and groan’.²⁶ With this list of reactive and primarily compulsive

²³ Thus Everson 1994, 94.

²⁴ As in Epicurus, the guiding force behind the process is nature (*natura*), which, as it is given an active role in the process of compulsion described here, may be understood as referring both to the objects in the external world whose impingement upon early human subjects elicited vocal responses and to the internal features of early human minds that caused them to respond as they did. Contrast Epicurus’ general account of cultural development at *Ep. Hdt.* 75, in which we found reason to limit the scope of ‘φύσις’ to human nature.

²⁵ Brunschwig 1994, 26–32.

²⁶ Procl. in *Cra.* 17 (= 335 Usener): ὁ γὰρ Ἐπίκουρος ἔλεγεν ὅτι οὐχὶ ἐπιστημόνως οὗτοι ἔθεντο τὰ ὀνόματα, ἀλλὰ φυσικῶς κινούμενοι ὡς οἱ βήσσοντες καὶ πταίροντες καὶ μυκώμενοι καὶ ὑλακτοῦντες καὶ στενάζοντες. On this passage, see further Atherton 2005, 122–5.

human behaviours, Proclus seeks to emphasize the similar nature of early naming on the Epicurean model.²⁷

On this model, an early human, upon receiving perceptual stimuli emitted by an odd-toed, solid-hoofed mammal with a flowing mane and tail whose voice is a neigh,²⁸ would compulsively utter the name 'horse'. There is, then, a necessary causal relationship between sensory input from a thing in the world and the utterance of a sound pattern particular to that thing or, as in the horse scenario, to that thing's type.²⁹ The nature of this particular sound pattern is determined by aspects of the utterer's psychological constitution that are shared within the utterer's group (so that all will say 'horse' when confronted with horses), but that are not shared by members of other ethnic groups (each of whose members would utter that group's own particular name for horse in response to perceptual stimuli from horses). Accounting in this way for the differences between synonymous names employed by different ethnic groups allowed Epicurus to neutralize a common objection to naturalism about names, which was that it is inconsistent with the existence of different natural languages.³⁰

²⁷ While the compulsiveness of some of these five activities may seem questionable (cannot one choose freely to groan or bellow? see Atherton 2005, 123–4), Proclus' phrase 'φυσικῶς κινούμενοι' suggests that we are asked here to read them primarily as mechanical responses to physical or psychological stimuli. Sextus, at *M.* 1.143, gives an account of the meaning of 'naturally' ('φύσει'), which shows the influence of the Epicurean theory, and which, like Proclus' account, compares the naturalness of the first uttered nouns to the naturalness of compulsive utterances: cries of pain and shouts of joy; see Blank 1998, 178–9; Atherton 2005, 125–6.

²⁸ *Oxford English Dictionary*, s.v. For the example, see Diog. Laert. 10.33, quoted in Section 1.6 at p. 36.

²⁹ To allow for differentiation by type (for example, by natural kinds) the theory must have found room for a process of mental categorization according to kinds. Elsewhere Epicurus provides us with a candidate mechanism for this, namely the role of preconceptions (*προλήψεις*) in enabling human beings to categorize things in the world around them (see pp. 35–6 with bibliography). For the likely role of such preconceptions in the emergence of language, see Everson 1994, 94–9; Atherton 2005, 129–37. On such a model, the nature of the environmental input would not be the sole contributing factor to the outcome of the process; certain internal features of the subject's mind would also have a role to play.

³⁰ See, e.g., Pl. *Cra.* 385d, with Ademollo 2011, 76. The need to neutralize this anti-naturalist argument may account for the discrepancy between Epicurus' general account of cultural development, where ethnic differences play a role only in the second stage, and his specific account of the phylogeny of language, where ethnic differences influence the process from the beginning. In this connection we may also notice the shift from singular *φύσις* in the first stage of the general account to plural

Given the progressive structure of Epicurus' overall theory of human development, we know that the language of the first stage was of a less ordered and rationalized form than the one that was developed following the intervention of reason. The organizational limitations of this first language were a result of the limited cognitive capacities of its users.³¹ Despite these limitations, scholarly treatments of *Ep. Hdt.* 75 have clearly established that the utterances of the first stage were real referring names rather than mere 'emotional cries'.³² What is more, given that the compulsive stimulus-response model was apparently the only mechanism by which names were used during the first stage, we can say that the first language was solely referential; there was apparently no way in which semantically weak words (such as conjunctions or particles) that do not serve to 'pick out' things in the world could have emerged on such a model of early language use.

Explaining early linguistic behaviour in terms of a natural disposition compulsively to utter certain names in response to different perceptual experiences does not give us a very robust model of language use among early humans. In particular, it leaves no room for selectivity.³³ The model sketched so far offers no mechanism to allow for some things to be named and others ignored; no way of stopping an early human, encountering a rich visual scenario

φύσεις τῶν ἀνθρώπων in the account of the first stage of the phylogeny of language: in the case of linguistic phylogeny, human nature cannot be treated as homogeneous, and the plural expression leaves room for differences in the natures of ethnic groups to play a role in the process.

³¹ We might compare this idea of a primitive first-stage language to Bickerton's notion of 'protolanguage': an early linguistic system of a less elaborate and rationalized form than full-blown developed language, featuring a lexical component but no syntactic or inflectional components: see Bickerton 1990; Dessalles 2007, 165–93; Bouchard 2013, 196–212.

³² The idea (for which, see Bailey 1928, 267–8; De Lacy and De Lacy 1941, 140–1) that the first stage included not real referring names but simply 'emotional cries' was first refuted by Vlastos (1946, 54 n.16), who points out that the names of the first stage were brought about not only by feelings but also by perceptions of objects; see Konstan 1973, 45–8. Brunschwig's analysis of the particular connections between names and objects expressed by Epicurus' term ἴδιος supports this view (Brunschwig 1994, 26–32); furthermore, Atherton (2005, 121; see also Reinhardt 2008, 128 n.10) has shown that the improvement of the 'indications' (δηλώσεις) of expressions in the second stage implies that first-stage expressions also indicated things in the world.

³³ The problem of selectivity, as outlined here, is distinct from the less tractable problem of control raised by Atherton (2005, 110–29): compulsive vocalizations, by definition, are not under the control of the vocalizer; this fact, Atherton argues, precludes them from being genuinely communicative, rather than merely informative.

featuring many different objects, from naming every one of them. Language use, on such a model, would bring little benefit to the lives of early humans. Epicurus may have intended to provide such a mechanism by including feelings (*πάθη*), alongside sensory impressions (*φαντάσματα*) in his account of the process: ‘the very natures of men . . . experienced particular feelings and received particular sensory impressions, and expelled the breath in a particular way, shaped by each feeling and sensory impression’.³⁴ Perhaps we may understand feelings here as working together with perceptions to elicit the naming of some objects within the subject’s field of vision, and the ignoring of others.³⁵ On this account, an individual’s compulsion to name an object would have been determined not only by the external impingement of sensory stimuli but also by their possession of feelings about said object. If, say, a hungry individual encountered some food, the combination of their perception of the food with their feeling of hunger might lead them to name the food, rather than any other items that happened to be in their field of vision.³⁶ The contributing role of the subject’s feelings of need in helping to draw out individual utterances is suggested also in Lucretius’ account at 5.1029: *et utilitas expressit nomina rerum* (‘and *utilitas* expressed the names of things’). As demonstrated by Reinhardt (2008, 131), ‘*utilitas*’ here should be understood as referring not to an awareness or consideration of the expediency of naming on the part of early humans, but rather to a lack, or need, corresponding to the referent

³⁴ That feelings were thought to have played a role in the process is further suggested by Lucretius, who says (5.1058) that early humans ‘designated things with varying voice according to varying sense’ (*pro vario sensu varia res voce notare*). That ‘sense’ here refers not only to perceptions but also to feelings is made clear later in the same passage (5.1056–62), where Lucretius compares this human linguistic skill with the expressive abilities of animals who ‘are accustomed to raise different and various sounds when frightened or in pain, and now when joys are growing’: *dissimilis soleant voces variasque ciere, | cum metus aut dolor est et cum iam gaudia gliscunt* (5.1060–1); see Atherton 2005, 107.

³⁵ See Verlinsky 2005, 67: ‘Epicurus does not mention the assignment of words to things as a process separate from emotive utterance.’

³⁶ The notion that the behaviour of humans during the early stage of their development was caused by a combination of internal needs and external inputs finds further support in a fragment of Diogenes of Oinoanda, (fr. 12 col. 2.9–10 Smith), where active roles in human development are assigned to both ‘needs’ and ‘external impingements over time’: *αἱ χρεῖαι καὶ περιπτώσεις μετὰ τοῦ χρόνου*. The involvement of feelings in the process may also have allowed early humans to utter names for different emotional states (Sedley 1973, 18; Long and Sedley 1987, 1.100).

of *infantia* in the analogy at 1031, where early human attempts at speech are compared to the gesturing of an infant.³⁷

at varios linguae sonitus natura subegit
mittere et utilitas expressit nomina rerum,
non alia longe ratione atque ipsa videtur 5.1030
protrahere ad gestum pueros infantia linguae,
cum facit ut digito quae sint praesentia monstrent.

But nature compelled them to emit the various sounds of the tongue, and need expressed the names of things. Not very much different from how speechlessness itself seems to drive little boys to use gesture, when it makes them point out what is present with a finger.

Why did Lucretius select a gesturing child for this analogy with early naming? Obviously, the activity of a young child may seem to be an appropriate analogy for a species in the early stages of its development, but here I would suggest we go further. The fragments of Book 25 of Epicurus' *On Nature* suggest that in the early stages of life, on the Epicurean account, individual human beings exhibit natural, necessitated behaviour; later, they come to develop rational control over the course of their own development, and so to bear both causal and moral responsibility for their own actions.³⁸ This pattern of individual human development—from compulsive, necessitated behaviour to responsible, rational behaviour—mirrors the pattern of development that we see in Epicurus' account of the cultural development of the species. The resultant analogy between human phylogeny (species development) and human ontogeny (individual development) may lie behind Lucretius' choice to illustrate early human language use with an image drawn from the lives of young children.

Central to the Epicurean theory of ontogenetic psychological development was a distinction between a creature's original psychological constitution³⁹ and its 'developed self', or 'product'.⁴⁰ The original constitution may be understood as the particular proportion and arrangement of different types of atom in the soul of the creature

³⁷ See also Meyer 1915, 55: 'de egestate agitur'.

³⁸ On the contents and arguments of Book 25, see esp. Furley 1967, 159–237; Sedley 1983; 1988; Annas 1992, 123–37; Laursen 1995; 1997; Bobzien 2000; 2006; O'Keefe 2005; Masi 2006.

³⁹ Called 'ἡ πρώτη σύστασις' and 'ἡ ἐξ ἀρχῆς σύστασις'.

⁴⁰ Called 'τὸ ἀπογεννημένον'. On the range of meanings held by this term in Epicurus, see Annas 1992, 129–34; Masi 2005.

at birth.⁴¹ This original constitution generates the initial, hard-wired character dispositions of each creature.⁴² Up until a certain age, any character developments a young creature undergoes are also determined by its original constitution;⁴³ once, however it attains the age of reason,⁴⁴ the developments of its soul come under its own control, and from that point onwards it may be held responsible for its own actions, even though the original constitution may still exert influence on its behaviour from time to time.⁴⁵

There is thus a structural analogy between the Epicurean accounts of human phylogeny and human ontogeny. Both processes begin

⁴¹ See DRN 3.288–322, and Furley 1967, 233–4.

⁴² See esp. Laursen 1997, 32 = 34.26 Arrighetti: ἀπ[ὸ τῆς] πρ[ώτης] ἀρχῆς σπέρμ[ατα] ἡμῖν ἀγ[ωγὰ], τὰ μὲν εἰς ταῖ[ε], τὰ δ' εἰς ταδεῖ, τὰ δ' εἰς ἀμφ[ω ταῦ]τά [ἐ]στιν αἰ[κα]ὶ πράξεων κ[αὶ] διανοήσεων καὶ διαθε[σε]ων καὶ πλε[ίω] καὶ ἐλάττωι, 'From the very beginning there are seeds directing us, some towards some things, some towards others, others towards both; these are always of actions, and of thoughts and of dispositions, both many and few', with Bobzien 2000, 325 n. 78. Quotations in this book from Epicurus, *On Nature* 25 are a composite of the texts printed by Laursen 1995, 1997.

⁴³ See Laursen 1997, 32–3 = 34.26 Arrighetti (with Bobzien 2000, 297), and Bobzien 2006, 215: 'We may perhaps think of these necessitated developments as a kind of genetically directed "maturing" of the mind.'

⁴⁴ Cf. the role attributed by Lucretius to *ratio* and *doctrina* at 3.307, 321, and see Bobzien 2000, 324 'when the soul (or the person whose soul it is) advances in age, it will be able to develop from itself, or from the cause from itself'. For causation and agency in *Nat.* 25, see Annas 1993; Bobzien 2000; Furley 1967, 233–4.

⁴⁵ The developmental process appears to be described in a long and difficult fragment of *On Nature* 25 (Laursen 1997, 28 = 34.24 Arrighetti):

κἂν κατὰ διάνοιαν δέ [τ]ι ἐκβιάζῃται ἡ πρώτη σύστασις τοῦ ἀπογεννημένου, μὴ ἐξ ἀνάγκης μέχρι τινῶν τοιούτων ἀπογεννωμένου ἀλλὰ μέχρι μὲν τοῦ ψυχῆν γενέσθαι ἣ καὶ τῶσάντην διέθεσιν καὶ κίνησιν ἔχουσιν ψυχῆν ἐξ ἀνάγκης τοιούτῃ ἀπογεννωμένου ἐκ τῶν τοιούτων, μέχρι δὲ τοῦ τοιανδὶ [ψυ]χῆν ἢ τ[οι]ανδὶ οὐκ ἐξ ἀνάγκης τοιούτῃ ἀπογεννωμένου ἢ οὐκ ἐπειδὴν προβῇ γε τῇ ἡλικίᾳ τοιούτῃ ἀπογενν[ω]μένου κατ' ἀνάγκην ἀλλ' ἐξ αὐτ[ο]ῦ δύ[να]μ[έ]ου καὶ τ[ῆς] ἐξ αὐ[τοῦ] αἰτ[υ]ίας καὶ ἄλλο . . .

And even if the first constitution of the development exerts some force in the mind, not being developed by necessity up to the point of (developing) these particular things, but, on the one hand, being developed from such conditions by necessity up to the point of there being a soul of such-and-such a disposition and motion, and, on the other hand, not being developed by necessity up to the point of there being a soul of such-and-such a kind, or at least not being developed by necessity when it advances in age, but having the capability, out of itself and out of the cause out of itself [to develop?] something else . . .

(translation adapted from Bobzien 2000, 324)

For the continued influence of the original constitution on a developed mind, see also DRN 3.307–22.

with a stage in which behaviour is necessitated by internal and external factors: natural dispositions, generated by the particular combination and configuration of atoms in the soul, regulate interactions with the external environment. After a period of necessitated development, the attainment of reason marks the point at which individuals gain control over their own development, and become responsible agents. I suggest that this similarity between the structures of phylogeny and ontogeny, on the Epicurean model, motivated Lucretius' adoption, at 5.1030–1, of an analogy drawn from the behaviour of young children.

What, then, was the extent of Epicurus' naturalism in his account of the first stage of linguistic phylogeny? That the first stage featured a form of functional naturalism is clear: using names, says Proclus, was thought by Epicurus to be as natural to early humans as was seeing and hearing. What is more, the compulsive utterances of Epicurus' functional naturalism ensured the emergence of particular word-referent pairings special to individual linguistic communities. The resultant connections between words and referents, being the products of a natural process, may themselves be called natural. As such, functional naturalism is not the only sort of naturalism operating during the first stage: the natural linguistic behaviour of early humans fixed the reference of the first names, and so out of Epicurus' functional naturalism there flowed a concomitant theory of referential naturalism.

Clearly, this is not the kind of referential naturalism familiar from texts like Plato's *Cratylus*, where the connection between word and referent was thought to be one of resemblance. Instead, what we find in Epicurus may be described, following Everson,⁴⁶ as a causal theory of referential naturalism, in which the connection between (e.g.) the word 'horse' and horses is the product of a natural causal process that begins with the emission of sensory stimuli from a horse and ends with the utterance of a corresponding name. Epicurus' theory of language, then, during the first stage of linguistic phylogeny, features both functional and referential naturalisms, the latter of which is grounded in the processes of the former.

⁴⁶ Everson 1994, 93–7, on language use during the first stage: 'Words thus stand in a non-conventional relation to what they denote. That a word has the extension it does is to be explained by reference to the causal history of its utterances' (93).

1.4. AFTER NATURE: *EGESTAS LINGVAE*

After describing the first, natural, stage of linguistic development, Epicurus continues (*Ep. Hdt.* 76):⁴⁷

ὕστερον δὲ κοινῶς καθ' ἕκαστα ἔθνη τὰ ἴδια τεθῆναι πρὸς τὸ τὰς δηλώσεις
ἡττον ἀμφιβόλους γενέσθαι ἀλλήλοις καὶ συντομωτέως δηλουμένας.

Later, particular impositions were made by consensus, people by people, in order that the designations might become less ambiguous among speakers, and more concisely expressed.

Unlike Epicurus' account of the first stage, for which we have several supporting *testimonia*, including the account of Lucretius at 5.1028–90, there is very little, if any, supporting evidence for the second stage of linguistic phylogeny.⁴⁸ At the advent of the second stage, compulsive natural linguistic behaviour comes to an end with the intervention of human reason (λογισμός) and the introduction of new names (ἴδια τεθῆναι). The origin of these new names is revealed by the verb τεθῆναι, echoing μὴ θέσει from earlier in the passage (*Ep. Hdt.* 75); while the names of the first stage originated by nature, these names originated instead by imposition, that is, by a deliberate act of naming. With the advent of the second stage, then, we have the arrival of linguistic choice, and with it the possibilities of linguistic change and linguistic error.

The stated function of the imposition of new names is the improvement of the 'designations' (δηλώσεις) of existing forms of expression, transforming the primitive language of the first stage into a rationalized system.⁴⁹ The Greek term 'δηλώσεις' may refer to the designations of individual words, or to the designations of multiple-word expressions such as phrases and sentences. That its use here is intended to include multiple-word expressions is made clear by the

⁴⁷ The linguistic improvements described in this sentence exemplify the process of 'increasing accuracy' (ἐπακριβοῦν) mentioned in Epicurus' general account of the second stage of cultural development (*Ep. Hdt.* 75, quoted in Section 1.2 at pp. 17–18).

⁴⁸ There are two possible exceptions: a fragment of Philodemus' *On Poems* 5, to be discussed later in this section at pp. 30–1; Ptolemy's Epicurean-influenced account of linguistic phylogeny in *Περὶ κριτηρίου καὶ ἡγεμονικοῦ* 4.2–6, as discussed by Verlinsky (2005).

⁴⁹ The sense of purpose expressed by πρὸς . . . γενέσθαι foregrounds the fact that the second stage, unlike the first, occurred under the direct influence of human reason and intention; see Brunschwig 1994, 31.

assertion that the improvements of the second stage included the abbreviation of existing designations. Lack of ‘conciseness’ (*συντομία*) is a problem suffered not by individual words but rather by multiple-word expressions like phrases and sentences. Rhetorical and oratorical discussions of *συντομία* tend to concern the brevity of a single phrase or argument, or even of a whole speech,⁵⁰ in some cases dealing explicitly with an act of (multi-word) *δήλωσις*.⁵¹ The fact that the expressions of the first stage could be rendered more concise, then, suggests that first-stage language users were capable of stringing together multiple-word expressions.⁵²

This notion finds support in two further Epicurean texts. First, at 5.1022–3 Lucretius describes early attempts at linguistic communication within the first societies: *vocibus et gestu cum balbe significarent | imbecillorum esse aequum misererier omnis*, ‘stuttering, they signify with utterances and gesture that it is right for all to pity the weak’. The difficulty with which these early humans express themselves, using gestures as well as words, suggests that we should place this activity in the first stage of linguistic development.⁵³ Second, Hermarchus relates how a group of early humans, recalling the benefits of non-violence, communicated to others the notion that homicide should be avoided (fr. 34.10.4 Longo Auricchio = Porphyry, *On Abstinence* 1.10.4).⁵⁴ Hermarchus is explicit that these early communicators had not yet developed full rationality, but were relying on mere irrational memory (fr. 34.10.4: *ἄλογος μνήμη*).⁵⁵ If they had not yet developed full rationality, they were still in the first stage of development, and yet Hermarchus makes it quite clear that they were capable of more than the utterance of single-word expressions.

The advent of the second stage brought with it not only the abbreviation, but also the disambiguation of the designations of existing

⁵⁰ For some examples out of many, see Isae. *Hagn.* 3.2; Gorg. *Pal.* 37; Arist. *Rh.* 1407b–1408a.

⁵¹ See, e.g., Isoc. *Paneg.* 64.

⁵² Even without formal structures of morphology and syntax (which, it is supposed, were not introduced until after the advent of the rationalizing second stage: Long and Sedley 1987, 1.100), such a language could still have allowed for a limited degree of communication between early humans: for the communicative potentials and limitations of protolanguages without formal inflectional or syntactic structures, see Dessalles 2007, 165–93; Bickerton 1990, 122–6, 156–63.

⁵³ See Campbell 2003, 279.

⁵⁴ = Long and Sedley 1987, 22N.

⁵⁵ See n. 21.

forms of expression. Brunschwig⁵⁶ suggests plausibly that Epicurus had in mind here the semantic ambiguity of individual terms, which was indeed a particular concern elsewhere in his writings.⁵⁷ As well as dealing with semantic ambiguity, the process of disambiguation that took place during the second stage may also have dealt with problems of syntactic ambiguity. A first-stage language whose expressions featured strings of words without formal syntactic organization would feature a high degree of syntactic ambiguity.⁵⁸ The rationalizing processes of the second stage will thus have brought order and disambiguation in the form of syntactic structure and inflection.⁵⁹

After mentioning these rationalizing attempts at abbreviation and disambiguation, Epicurus continues with his description of the second stage (*Ep. Hdt.* 76):⁶⁰

τινὰ δὲ καὶ οὐ συννορόμενα πράγματα εἰσφέροντας τοὺς συνειδότας παρεγγυῆσαι τινὰς φθόγγους· τοὺς <μὲν οἶν>⁶¹ ἀναγκασθέντας ἀναφωνῆσαι, τοὺς δὲ τῷ λογισμῷ ἐλομένους κατὰ τὴν πλείστην αἰτίαν οὕτως ἐρμηνεύσαι.

Also, men with understanding, introducing certain things that were previously not understood, recommended certain utterances [i.e. as names for them]. <Therefore, some> men were compelled to give utterance, and others, choosing words by reason, expressed themselves in this way, as far as the principal cause is concerned.⁶²

⁵⁶ 1994, 31.

⁵⁷ Epicurus wrote a treatise *Περὶ Ἀμφιβολίας*, to which allusion is made at *Nat.* 28 fr. 13 col. 5.2–1 inf. Sedley, in the context of a discussion about the semantics of individual words.

⁵⁸ See Dessalles 2007, 167–73.

⁵⁹ Long and Sedley 1987, 1.100.

⁶⁰ The linguistic innovations described in this sentence exemplify the process of ‘augmentation’ (*προσεξευρίσκειν*) mentioned in Epicurus’ general account of the second stage of cultural development (*Ep. Hdt.* 75, quoted in Section 1.3 at pp. 17–18).

⁶¹ <μὲν οἶν> *suppl. Sedley* 1973, 17.

⁶² The interpretation of this passage is made more difficult by the high likelihood that something has fallen out of the text. Here I print Sedley’s text, in which the account of the second stage extends only as far as the sentence ending ‘*τινὰς φθόγγους*’. Given the mention of compulsive naming in the sentence that follows (τοὺς . . . ἀναγκασθέντας ἀναφωνῆσαι), that sentence should not be understood as describing the activity of the second stage, since the activity of the second stage, as was made clear in the general account of human development (*Ep. Hdt.* 75), is not carried out under natural compulsion (Sedley 1973, 19). Hence the final sentence of this passage (from τοὺς <μὲν οἶν> ἀναγκασθέντας) should be understood as a summation of the entire process of linguistic phylogeny, with ‘*τοὺς μὲν*’ and ‘*τοὺς δέ*’ referring to language users of the first and second stages respectively.

Some distinguishing feature, perhaps superior intellectual ability,⁶³ allowed the *συνειδότες*⁶⁴ to comprehend things that were not widely comprehended at the time (note the distinction in tense between ‘*συννορώμενα*’ and ‘*συνειδότας*’), which they introduced to the rest of the people, simultaneously passing on names for them.⁶⁵ Epicurus is not explicit about the kinds of name the *συνειδότες* are thought to have handed down for their newly introduced items. While we may safely assume that they were thought to have engaged in the imposition of new words, their naming activity need not have been limited to imposition, but may also have extended to the application of pre-existing names to new items (i.e. metaphor). A tantalizing fragment of Philodemus’ *On Poems* Book 5, which appears to deal with the origins of figurative language in poetry, offers evidence in support of the notion that metaphor was thought to have played a role in the early rational development of language: *καθ’όλου τε γὰρ ἡ ποη[τικ]ῇ ξενοφωνία πα[ρ]ήλ[θεν] εἰς ἀνθρώπους [διὰ] ζήλοτυπῖαν τῶν [εἰς τ]ὰς καινὰς ὠφελεῖ[ας καὶ] νῶς ταῖς ἐρμη[νείαις] κεχρημένων, ‘For, in general, the strange language of poetry came to mankind because of emulation of people employing expressions in new ways for new benefits’ (*PHerc.* 403 fr. 5 col. 1.8–14, as edited and translated by Mackey (2015)). Mackey (2015, 79, 83) equates those who ‘employ expressions in new ways for new benefits’ with the *συνειδότες* of *Ep. Hdt.* 76, and so concludes (2015, 81) that the fragment demonstrates that the activity of the *συνειδότες* featured ‘existing expressions’ being ‘given additional meanings through metaphorical or*

⁶³ Individuals with special talents or abilities play a crucial role in two other Epicurean narratives about social and cultural development (see Long and Sedley 1987, 1.136). In Lucretius, see 5.1105–7 for the invention of fire, and 5.1143–7 for the introduction of laws. In Hermarchus, see fr. 34.9.4 Longo Auricchio for the introduction of laws by *συνειδότες*, and 34.9.5 for the general principle that the development of human cognitive capacities was spurred on by the innovations of exceptional individuals.

⁶⁴ For the meaning of *συννορᾶν* in Epicurean writings, see Verlinsky 2005, 77–83; Mackey 2015, 73–4.

⁶⁵ Note the reappearance here of the verb *παρεγγυᾶν* (‘recommend’), previously used (at *Ep. Hdt.* 75) of human nature, after the end of the first stage, ‘handing down’ its developments to later generations of men. Twice in extant Epicurean texts (*Ep. Hdt.* 37, *Phld. Piet.* 733–4 Obbink) this verb is used to refer to Epicurus’ own recommendations to his followers. The recommendations of Epicurus’ *συνειδότες* may thus be compared to the recommendations of the master himself: *συννορᾶν* is, after all, a term regularly used by Epicurus of the philosophical comprehension of the unseen world his doctrines will enable (e.g. *Ep. Hdt.* 38, 63; *Ep. Pyth.* 99, 116).

figurative use'. While it may be said to put a lot of weight on Armstrong's supplement 'καὶ]νῶς',⁶⁶ I find Mackey's interpretation of the fragment to be both plausible and attractive. The application of existing terms to newly introduced, previously unnamed items, is, of course, one of the central tasks of Epicurean linguistic practice.

The post-natural stages of the Epicurean theory of linguistic development are, I suggest, highly relevant to our understanding of the creative linguistic activity of Lucretius. We have already seen (pp. 2–8) how Lucretius characterizes his linguistic creativity as a response to a perceived weakness or incompleteness in his own native language. In Chapters 3–6 of this book I will explore a variety of different forms of Lucretius' own creative use, manipulation, and augmentation of the Latin language. Lucretius may be understood as a latter-day *συνειδών*, responding to the perceived deficiencies in the language he has inherited.⁶⁷ Not only must Lucretius introduce previously unseen entities to his fellow language users, but he must also pass on names for these entities, some of which are fresh coinages, some of which are loan shifts, expanding the meanings of pre-existing terms,⁶⁸ and many more of which fall under Philodemus' category of 'expressions employed in new ways for new benefits'.

1.5. NATURALISM WEAKENED

The changes heralded by the arrival of the second stage bring with them significant implications for both functional and referential linguistic naturalism. During the first stage, early humans possessed natural dispositions to express particular sound patterns in response to particular stimuli, with stimulus–utterance pairings being shared among members of each linguistic community. The early use of language, then, was a function of human nature, carried out compulsively in response to appropriate stimuli. With the advent of the second stage we say goodbye to this compulsive stimulus–response

⁶⁶ See, however, Mackey 2015, 79 n. 84, arguing that my supplement *δεῖ]νῶς* is still compatible with his overall reading.

⁶⁷ We may note in this regard that Lucretius' characterization of his linguistic task at 1.145, as explored at pp. 11–14, features a Latin-language equivalent of the verb *συνοράω*: *res quibus occultas penitus convisere possis*.

⁶⁸ For loan shifts, see p. 174, n. 8.

model of naming. Names may now be selected by reason, and their utterance is necessitated by neither external nor internal forces. The use of names, then, after the end of the first stage, is no longer a compulsive function of human nature. This constitutes a significant weakening of functional linguistic naturalism.

What of the disposition to associate certain sound patterns with certain external impingements? Is it possible that while the compulsive stimulus–response aspect of naming was lost with the passing of the first stage, the natural disposition to associate particular things with particular sound patterns was not? If Epicurus did hold to a theory according to which contemporary speakers possessed an innate knowledge of natural word-referent pairings, we might expect to see evidence of it in those of his texts that express norms for the use of names. There is no such evidence, nor do any of the *testimonia* characterize Epicurean naturalism in this way. Take, for example, the exegesis of Demetrius Lacon (*P.Herc.* 1012 col. 67.1–10 Puglia), where various Epicurean claims about human nature are justified:

[φύσει γὰρ λέγεται ὁ ἄνθρωπος ποριστικός εἶναι τροφῆς,⁶⁹ ἐπειδὴ περ ἄδιαστροφῶς, φύσει δὲ πόνων εἶναι δεκτικός, ἐπειδὴ κατ[ατ]ηναγκασμένως, φύσει δὲ τὴν ἀρετὴν διώκειν, ἐπεὶ συμφερόντως, φύσει δὲ τὰς πρώτας τῶν ὀνομάτων ἀναφωνήσεις γεγρονέναι λέγομεν, καθὼδ . . .

[For man is said naturally to procure] food, because this is a natural instinct; naturally to undergo toils, because he does so by necessity; naturally to pursue virtue, because he does so to his benefit; and we say that the first utterances of names came about by nature, according . . .

Whereas the other natural human tendencies are described in the present tense, the naturalness of names is strictly tied to the historical first utterances of early humans. If, according to Epicurus, human beings after the end of the first stage were still innately predisposed to name horses ‘horses’, then the strong historical slant of this text, as well as that of the *testimonia* of Proclus⁷⁰ and Origen,⁷¹ would be difficult to explain.

The changes to functional naturalism heralded by the end of the compulsive linguistic behaviour of the first stage require us to revisit our account of Epicurus’ referential naturalism. As we saw, during the first stage, each name naturally enjoyed an exclusive causal connection

⁶⁹ *suppl. Croenert.*

⁷⁰ *In Cra.* 17 (335 Usener).

⁷¹ *C. Cels.* 1.24 (334 Usener).

to its referent. This was a strong form of referential naturalism. After the advent of the second stage, this is no longer true. First, there are new names, coined during the second stage, whose development and use is determined by the exercise of human reason. Clearly such names would not have enjoyed the same natural causal connections to their referents that were necessarily enjoyed by the names that emerged during the first stage: rather, the relations of such terms to their referents would be arbitrary; with time, if such terms gained currency among language users, they may also have become conventional. Second, given that humans now have the freedom to use names as they please, any new metaphorical usage of a first-stage name will likewise feature an arbitrary connection (with the potential to become a conventional connection later) between word and referent. Finally, in cases where a name that emerged during the first stage is still used in its original natural sense, i.e. to refer to that thing or type of thing whose stimulus elicited the first compulsive utterance of the name—its usage in that sense is contingent on the exercise of choice: the necessary causal nexus from which it originated has been broken. This constitutes a significant weakening of referential linguistic naturalism.

While the nature of Epicurus' referential naturalism has certainly been weakened by the advent of the second stage, we should not yet conclude that it has disappeared altogether. Referential naturalism, we recall, is the thesis that there can exist a natural connection, or fit, between a word and its referent. While the compulsive, stimulus-led process that led to the forging of such connections has come to an end, so that there will, after the end of the first stage, be no new natural names, there might be other ways in which those names that emerged by nature and that survived into the lexicon of the second stage could still be said to enjoy such natural connections to their referents. The new naturalist picture will undoubtedly be an etiolated one, limited to certain names being used in certain senses, and, what is more, any natural word-referent connection that does survive will be weaker, given its contingent status; as of yet, however, we have been given no reason to cast out referential naturalism entirely after the advent of the second stage.

Catherine Atherton suggests a way in which a kind of referential naturalism could be saved even after the end of the first stage.⁷²

⁷² 2009, 213–14; see also Long and Sedley 1987, 1.101.

A name used after the advent of the second stage may be said to enjoy a natural connection to its referent if there exists what we might call, in modern parlance, ‘a causal chain of reference-preserving links’⁷³ leading from today’s usage all the way back to the original, natural usage of that word. So, to take ‘horse’, the first humans to utter names compulsively uttered the name ‘horse’ when exposed to appropriate perceptual stimuli and appropriate feelings; at the advent of the second stage, although the necessary causal connection between horse stimuli, appropriate feelings, and utterances of the word ‘horse’ was lost, individual speakers chose to continue employing that name to refer to horses. As new speakers learned the language, they learned that the name ‘horse’ could profitably be used to refer to horses and so used it, and so the name was passed down the generations, keeping the same meaning, until the present day, with the result that when I choose to use the name ‘horse’ to refer to a horse, my usage still bears what Atherton (2009, 213) calls ‘the stamp of natural legitimacy’. The result would still be a theory of referential naturalism, but one in which added to the necessary causal links between objects and their names that characterized language use during the first stage is a chain of contingent causal links relying on the free linguistic behaviour of different language users within a community.

On such a model, whereas referential naturalism in the first stage was guaranteed, it is now contingent, and whether or not natural usages of original names survive will depend on the nature and the rate of linguistic change taking place in each society. The linguistic world in which both Epicurus and Lucretius were operating was a world of convention, arbitrariness, and potential error, and their own creativity as users and developers of philosophical language relied on the fact that the reference of terms is not fixed by nature but can be freely changed.

1.6. NATURE’S NORMS?

One consequence of a move from a natural and compulsive model to an arbitrary and conventional model of naming is that under the second stage there is considerably more room for the development of

⁷³ Gareth Evans, at Evans and Altham 1973, 191.

norms intended to shape or influence linguistic behaviour. In this section I outline the possibility that Epicurus' referential naturalism, as outlined in Section 1.5 above, may have underwritten some of his linguistic norms.⁷⁴ It is worth noting at the outset that there is no explicit evidence for this: at no point in any text of Epicurus (or, for that matter, Lucretius), is naturalism appealed to in the context of a discussion of linguistic norms. Accordingly, we must, once again, be careful not to overstate the place of naturalism in the Epicurean linguistic picture. Nevertheless, as we shall see, it is plausible that Epicurus' causal theory of referential naturalism provided grounds for at least some of his own linguistic norms.

Perhaps the most significant Epicurean normative principle about language use and comprehension is expressed at *Ep. Hdt.* 37–8:

πρῶτον μὲν οὖν τὰ ὑποτεταγμένα τοῖς φθόγγοις, ὧς Ἡρόδοτε, δεῖ εἰληφέναι, ὅπως ἂν τὰ δοξαζόμενα ἢ ζητούμενα ἢ ἀπορούμενα ἔχωμεν εἰς ταῦτα ἀναγαγόντες ἐπικρίνειν, καὶ μὴ ἄκριτα πάντα ἡμῖν ἢ εἰς ἄπειρον ἀποδεικνύουσιν ἢ κενούς φθόγγους ἔχωμεν· ἀνάγκη γὰρ τὸ πρῶτον ἐννόημα καθ' ἕκαστον φθόγγον βλέπεσθαι καὶ μηθὲν ἀποδείξεως προσδεῖσθαι, εἴπερ ἔξομεν τὸ ζητούμενον ἢ ἀπορούμενον καὶ δοξαζόμενον ἐφ' ὃ ἀνάξομεν.

First, then, Herodotus, we must grasp the things subordinated to words, so that we can refer to them when judging matters of opinion, inquiry, or difficulty, and that we may have discrimination in all things as we prove things to infinity, and not have empty words. For it is necessary that the first concept corresponding to each word should be seen, and that there be no further need for proof, if we are to have something to which we can refer matters of inquiry, difficulty, or opinion.

Epicurus advises that, when engaging in philosophical inquiry, we ought to grasp the things subordinated to words, and look to the primary conception (τὸ πρῶτον ἐννόημα) corresponding to each word. The 'primary conception corresponding to each word' has been widely understood as a reference to preconceptions: self-evident common conceptions of certain general features of reality, formed by individuals on the basis of repeated perceptual experience.⁷⁵ Grasping

⁷⁴ For accounts along these lines, see, for example, Sedley 1973, 20–1; Long and Sedley 1987, 1.101; Atherton 2009, 213–14.

⁷⁵ The bibliography on preconceptions is very large. Among the most significant items are Manuwald 1972; Goldschmidt 1978; Asmis 1984, 19–80; 1999, 276–83; 2009; Everson 1994; Barnes 1996; Hammerstaedt 1996; Morel 2008; Fine 2014, 226–56.

preconceptions is of crucial importance for anyone engaging in inquiry; it enables us to avoid endless regression of proofs and the use of ‘empty words’;⁷⁶ preconceptions function as criteria of truth, and help us to organize and categorize our perceptual experience.

Diogenes Laertius (10.33) provides us with the most detailed definition of Epicurean preconceptions, in which he appears to support the claim that Epicurus’ phrase ‘the first conception corresponding to each word’ refers to preconceptions:

τὴν δὲ πρόληψιν λέγουσιν οἷον εἰ κατάληψιν ἢ δόξαν ὀρθὴν ἢ ἔννοιαν ἢ καθολικὴν νόησιν ἐναποκειμένην, τουτέστι μνήμην, τοῦ πολλάκις ἔξωθεν φανέντος, οἷον “τὸ τοιοῦτόν ἐστιν ἄνθρωπος”. ἅμα γὰρ τῷ ῥηθῆναι ἄνθρωπος εὐθὺς κατὰ πρόληψιν καὶ ὁ τύπος αὐτοῦ νοεῖται προηγουμένων τῶν αἰσθήσεων. παντὶ οὖν ὀνόματι τὸ πρῶτως ὑποτεταγμένον ἐναργές ἐστι· καὶ οὐκ ἂν ἐζητήσαμεν τὸ ζητούμενον εἰ μὴ πρότερον ἐγνώκειμεν αὐτό· οἷον “τὸ πόρρω ἐστὼς ἵππος ἐστὶν ἢ βοῦς”; δεῖ γὰρ κατὰ πρόληψιν ἐγνώκειναι ποτὲ ἵππου καὶ βοῶς μορφὴν· οὐδ’ ἂν ὀνομάσαμεν τι μὴ πρότερον αὐτοῦ κατὰ πρόληψιν τὸν τύπον μαθόντες.⁷⁷

They say that preconception is, as it were, apprehension, or true belief, or universal stored thought (that is, memory) of what often becomes evident from outside, for example: ‘such and such a kind of thing is a man’; for as soon as the word ‘man’ is spoken, immediately the outline of man according to a preconception also comes to mind, with the senses leading the way. Therefore, the first thing subordinated to each name is self-evident; and we would not have inquired about a thing if we did not have knowledge of it before. For example: ‘Is what is standing there a horse or a cow?’ For it is necessary at some time to have known, according to a preconception, the shape of a horse and a cow; we would never have named something unless we already knew its outline according to a preconception.

On this account, the first conception subordinated to each name would appear to be the preconception of the thing to which the name refers (e.g. man), and it is ‘first’ in so far as it is the first thing to come to mind upon mention of the thing’s name. But while this makes good sense for words like ‘man’, ‘cow’, and ‘horse’ (i.e. words whose referents are the kinds of things of which there can be preconceptions), it cannot be the whole picture. As Gail Fine has

⁷⁶ On which difficult phrase, see esp. Everson 1994, 104–7; Atherton 2009, 206–7, 214; Fine 2014, 244 n. 57.

⁷⁷ Text: Long and Sedley 1987, 2.92–3.

recently demonstrated, the range of Epicurean preconceptions was rather narrow.⁷⁸ Many things, including things whose names crop up in the *Letter to Herodotus* (atoms, for instance),⁷⁹ do not have a preconception that could be subordinated to their name. Each name must, however (given Epicurus' phrase 'corresponding to *each word*') have a 'first concept', a *πρῶτον ἐννόημα*. Not all first conceptions corresponding to words, then, will be preconceptions; rather, preconceptions will be only a particularly important subset of first concepts corresponding to words.

Diogenes suggests that there was thought to exist a connection between each term and the first conception that was subordinated to it—a connection sufficiently transparent that all it takes is for the name 'man' to be uttered for immediate mental access to be granted to the 'outline' of man in accordance with man's first conception (which in that case is also a preconception). It is likely that it was this aspect of Epicurus' epistemological doctrine that justifies the claim made elsewhere that names possess their own clarity and informativeness: Epicurus, we are told, held that names are clearer than definitions;⁸⁰ indeed, the clarity and informativeness of a name risks being obscured when definitions are employed.⁸¹ When we attend to a name such as 'man', 'cow', or 'horse', we are granted transparent access to the preconceptions subordinated to each, rendering definitions of them superfluous.⁸²

It was noted above (p. 21 n. 29) how preconceptions may be understood as having played a role somewhere in the causal nexus that led from an encounter with an object to the uttering of the name of that object's kind among early humans. On this account, the first stage of linguistic development not only established natural connections between names and their referents, between horses and the name 'horse', but also established the initial subordination of

⁷⁸ Fine 2014, 235–7. See also Asmis 1999, 277–8; 2009, 87–8.

⁷⁹ See also Sedley 2011, 42.

⁸⁰ See the anonymous Academic commentary on Plato's *Theaetetus* (PBerol. inv. 9782 col. 22.39–42 Bastianini and Sedley): τὰ ὀνόματα . . . σαφέστερα εἶναι τῶν ὄρων.

⁸¹ See the prologue to Erotian's *Hippocratic Lexicon* (p. 7.21 Nachmanson = 258 Usener): 'the clarity of an expression is lost (ἀπόλλυται . . . τῆς ἐρμηνείας τὸ φανερόν) when a definition is used in place of the expression itself' (ὅθ' ὑπὸ λόγου καθάπερ τινὸς οἰκείου μαγγανεύηται φαρμάκου—literally, 'when it is charmed by an account, as though by some suitable drug'); see Taylor 2016a, 55.

⁸² On Epicurus' rejection of definitions, see esp. Asmis 1984, 39–47; Besnier 1994; Taylor 2016a, 54–6.

the preconception of horse to the name ‘horse’. This suggests an additional sense in which the word ‘πρῶτον’ in the phrase ‘τὸ πρῶτον ἐννόημα’ at *Ep. Hdt.* 38 may be understood: in those instances where the πρῶτον ἐννόημα is also a preconception, it will refer not only to the first concept to come to mind on the utterance of a name (as Diogenes Laertius has it), but also to the first concept ever to have been subordinated to that name.⁸³

As was discussed in Section 1.5, after the end of the first stage of linguistic development humans were free to develop their language however they pleased. This freedom extended to the subordination of concepts to names: a fragment of *On Nature* 28 shows Epicurus himself describing the various ways in which false opinion may be erroneously subordinated to words,⁸⁴ and two Latin texts (one of Cicero, one of Lucretius) each describe the process of subordination as something that is within the control of individual language users.⁸⁵ After the end of the first stage, language use became contingent on the decisions of individual language users, and this holds for the subordination of conceptions to names as much as it does for anything else. Given the methodological value of preconceptions to inquirers, then, it is not hard to see why Epicurus was attracted to a linguistic norm according to which words should be interpreted in accordance with their original, natural usages. Relying on the relationship of primary subordination between term and preconception (a relationship which emerged during the first stage) will maximize our chances of accessing preconceptions, which are crucial for processing and coming to understand the world around us.

We have good evidence to suggest that Epicurus believed that, where possible, and all other things being equal, established meanings of terms are to be preferred over new, non-established ones. The advice we find in Epicurean texts to use terms in their ordinary or established senses constitutes a linguistic norm whose aim is to

⁸³ See Konstan 1973, 51; Long and Sedley 1987, 1.101; Atherton 2009, 213–4.

⁸⁴ *Nat.* 28 fr. 13 col. 7.4–5 sup. Sedley: ψευδῆς ὑποτετάχθαι ταῖς[ς] λέξεσ[ιν] ἐκίνας δόξα (‘a false belief has been subordinated to these words’), with Barnes 1996, 213.

⁸⁵ *DRN* 3.421: *tu fac utrumque uno subiungas nomine eorum*—‘See that you subordinate each of them to a single name’ (discussed further, pp. 48–9); *Cic. Fin.* 2.48: *neque intellegere nec videre sub hanc vocem honestatis quae sit subicienda sententia* (‘they neither see nor understand what meaning should be subordinated to the term “morality”’); on the interpretation of this sentence, see Taylor 2016a, 68 n. 47.

ensure the preservation of the original usages of those terms, thus maximizing the chances that said terms are used in such a way as to offer us transparent access to underlying preconceptions.⁸⁶ The clearest statement of this norm in the extant texts of Epicurus is found in the fragments of *On Nature* 28:

πάνυ γὰρ οἶμαι σε πολλὰ ἂν ἔχειν προε[ν]έγκασθαι ἃ ἐθεώρεις γελοίας
[π]ώ[ς] τ[ι]να[ς] ἐγδεξαμένους καὶ π[άν]τ[α] μᾶλλον ἢ τὸ νοούμενον
κατὰ τὰς λέξεις, οὐκ ἔξω τῶν ἰθισμένων λέξεων ἡμῶν χρωμένων οὐδὲ
μετατιθέντων ὀνόματα ἐπὶ τῶν φανε[ρ]ῶν.

Nat. 28 fr. 13 col. 5.3–12 sup. Sedley

For I do not doubt that you could cite many cases, from your own past observations, of certain people taking words in various ridiculous senses, and indeed in every sense in preference to their actual linguistic meanings, whereas our own usage does not flout linguistic convention, nor do we alter names with regard to the objects of perception.⁸⁷

(Translation: Sedley 1973)

To this we may add the two passages in the *Letter to Herodotus* where Epicurus, in discussing the meanings of the terms he is using, appeals to their ordinary meanings in order to determine the natures of their referents.⁸⁸ Where possible, using names in their established senses, while eschewing linguistic innovation, offers us the best chance of ensuring that attending to the meaning of a name will allow us to access a preconception underlying that name.⁸⁹ If we abandon established usages, and change the names we use to refer to things, there is a risk that we may subordinate false conceptions to them, robbing them of their natural clarity and informativeness.

Further support for this interpretation is given by Cicero, who (at *Fin.* 2.48 = Usener 69) suggests a very close connection between the

⁸⁶ See further: Taylor 2016a.

⁸⁷ For further appeals to the value of ordinary language in *Nat.* 28, see fr. 12 col. 3.11–12 Sedley and fr. 13 col. 9.4–3 inf. Sedley, with Leone 1987, 53 n. 10. For the value of ordinary language in Philodemus' *Rhetoric* II, see Chandler 1996.

⁸⁸ *Ep. Hdt.* 67, on the the common usage (τὴν πλείστην ὁμιλίαν) of the term 'incorporeal', and *Ep. Hdt.* 70, appealing to the common meaning (τὴν πλείστην φοράν) of the term 'accidents'. See further Phil. *Piet.* 213–14 Obbink, with Obbink 1996, 303–4; Taylor 2016a.

⁸⁹ Of course, there will always be the risk that ordinary usage will have developed in such a way as to obscure the true natures of things. For the example of god, see Epicurus *Ep. Men.* 123–4 with Taylor 2016a, 58–9; for discussion in Philodemus' *Rhetoric* of distinctions between 'colloquial' and 'proper' uses of the term 'τέχνη', see Chandler 1996.

established meaning of a term (as revealed by *consuetudo*), and the preconception which should be subordinated to that term:⁹⁰

hanc se tuus Epicurus omnino ignorare dicit quam aut qualem esse velint qui honestate summum bonum metiantur. si enim ad honestatem omnia referant neque in ea voluptatem dicant inesse, ait eos voce inani sonare (his enim ipsis verbis utitur) neque intellegere nec videre sub hanc vocem honestatis quae sit subicienda sententia. ut enim consuetudo loquitur, id solum dicitur honestum quod est populari fama gloriosum. quod, inquit, quamquam voluptatibus quibusdam est saepe iucundius, tamen expetitur propter voluptatem.

As for those who measure the greatest good by morality, your Epicurus says that he has no idea what nature or what character they want morality to have. For if they refer all things to morality, and deny that pleasure is included in it, he says that they utter empty words (he uses these exact words), and that they neither see nor understand what meaning should be subordinated to the term ‘morality’. For according to ordinary usage, only that which is renowned by popular acclaim is called ‘moral’. ‘And such renown,’ says Epicurus, ‘though often more charming than some pleasures, is nonetheless sought for the sake of pleasure.’

A final piece of evidence—one that appears explicitly to connect the issues of language history and ordinary language—was first published in 2011.⁹¹ Diogenes of Oinoanda, New Fragment 192, imagines a debate between Stoics and Epicureans over the meaning of the term ‘pleasure’. Diogenes’ imaginary Stoic counterpart accepts the Epicurean claim that tranquility (*ἀταραξία*) should feature in an account of the moral end, but objects to the Epicurean use of the term ‘pleasure’ to refer to tranquility:

τί οὐ πάλοι ἡμεῖν ἐλέ[ξα]τε;—“τὸ μὲν δόγμα ὑμῶ[ν] ἀληθές, ἄνδρες, τῷ δὲ [τῆς] ἡδονῆς ὀνόματι φα[ύλως] κέχρησθε”, ἵνα πρὸς [τοῦ]το ὑμεῖν εἴπαμεν. “[καὶ]νὸν μὲν οὐδαμῶς ὑ[μῖν] τάττομεν τόνδε τὸν [λό]γον κατὰ τοῦ προειρη[μέ]νου καταστήματος, [ἀλλ]’ ἄνωθεν ὠμειλη[μέ]νον πᾶσιν Ἑλλήσιν”

Why did you not say to us long ago: ‘Your doctrine is true, gentlemen, but you have misused the name pleasure’? So that we might have replied to you in opposition to this: ‘The account of the aforementioned state

⁹⁰ On which passage, see Taylor 2016a, 68–9.

⁹¹ Hammerstaedt and Smith 2011.

that we are now marshaling is by no means new, but is ordinary language from the beginning among all Greeks.’

(Translation: Hammerstaedt, in Hammerstaedt and Smith 2011, 93)

Diogenes here justifies the Epicurean use of the term ‘pleasure’ to refer to tranquillity by stating that such a usage is in line with that term’s ordinary meaning. In so doing he makes an explicitly historical claim, stating that the Epicurean use of the term ‘pleasure’ to refer to tranquillity is no recent development, but in line with what has been that term’s ordinary meaning for all Greeks from the beginning. This constitutes further evidence in support of the claim that, for Epicurus, the value of appeals to ordinary language lay in the connections between ordinary usages of terms and the natural usages which emerged during the first stage.⁹²

1.7. CONCLUSION

Despite the weakened and contingent status of Epicurus’ referential naturalism following the advent of the second stage, we can see how it is likely that the natural connections forged during the first stage between words, their referents, and the preconceptions of their referents influenced Epicurus’ own normative regime for language use. Of course, there are some elements of the philosopher’s linguistic practice, such as the application of names to unseen or previously unknown entities, which will not allow him to continue using names in their ordinary, established senses. As we shall see in the next chapter, however, even in such cases, the original natural connection between a term and its subordinated preconception may still have been thought to play a valuable role in enabling the philosopher’s words to be more clearly understood.

There can be no doubt that naturalism was an important feature of Epicurus’ linguistic theory. Its influence was not merely historical, but appears to have extended into present-day concerns about the correct use and interpretation of language. Such a theory may seem particularly enticing for readers and critics of Lucretius, a poet whose extraordinarily rich and varied use of the Latin language exhibits

⁹² On this passage, see further Taylor 2014.

several features that have been interpreted in the light of Epicurean linguistic naturalism (indeed, one of the aims of this book is to assess, and in some instances to further, such naturalist interpretations of Lucretian language). At the same time, the undoubted importance of naturalism to Epicurean language theory should not be allowed to eclipse those conventionalist features of the theory which, as I will later argue, also influenced Lucretius' own use of and attitudes to language. To take one obvious example, the introduction of the rational development of language after the end of the first stage leaves the door open for an Epicurean science of etymology—for the tracing of contemporary words back through the history of rational language development.⁹³ The absence of any discussion of the post-natural development of language in Lucretius' account of language origins at 5.1028–90 (compare Epicurus, *Hdt.* 75–6) has been taken to indicate a lack of concern on Lucretius' part with the non-naturalist elements of Epicurean language theory.⁹⁴ As shall be demonstrated throughout the rest of this book, however, there is evidence elsewhere in the poem of a Lucretian interest in the history of language's rational development. The peculiar relationship, identifiable in the Epicurean theory of language, between present-day conventionalism and the etiolated remnants of a former naturalism provides a key to understanding much of the linguistic activity and creativity of Lucretius.

⁹³ See Long and Sedley 1987, 1.100.

⁹⁴ Thus Snyder 1980, 22, quoted at p. 125.

Lucretius and Epicurus on Metaphor

2.1. AN EPICUREAN DIALECT

In this chapter I discuss Lucretian attitudes to metaphor, metonymy, and synecdoche in the light of what can be known of Epicurus' own views. I also seek to demonstrate how the Epicurean account of metaphor may have been underwritten by other elements of the school's linguistic theory. Two Epicurean linguistic principles, each relevant to a theory of metaphor, may be established at the start:

- (1) Each word has a primary meaning.
- (2) Speakers may assign meanings to words.

(1) is demonstrated by the Epicurean doctrine that each word has subordinated to it a primary conception, an outline of whose object is immediately brought to mind upon the utterance of the word.¹ When a word is used to refer to the object of its primary subordinated conception, it is being used in its primary meaning. (2) follows from the Epicurean account of language history: after the end of the first stage, the development of language comes fully under the control of rational language users. (2) is further demonstrated by three texts, each of which suggests that humans are free to decide which concepts to subordinate to which terms.² Taken together, these two principles provide a basis for a theory according to which metaphor consists in the assignment of new meanings to terms instead of or in addition to their primary meanings. So, if the preconception of horse is the

¹ See *Ep. Hdt.* 37–8 and Diog. Laert. 10.33, discussed above at Section 1.7.

² *Nat.* 28 fr. 13 col. 7.4–5 sup. Sedley; *DRN* 3.421; Cic. *Fin.* 2.48; these texts are quoted and translated at p. 38 nn. 84, 85; 3.421 is discussed further at pp. 48–9.

primary conception subordinated to the term 'horse', I use the term 'horse' in its primary meaning when I use it to refer to horses. Given that I am free to determine which concepts to subordinate to which terms, however, there is nothing to stop me subordinating further concepts to the term 'horse'. If I use the term 'horse' to refer to the objects of one of these further subordinated concepts, I will be using it not according to its primary meaning, but in a secondary, metaphorical sense. On this account, then, Epicurean metaphor (as well as related tropes such as metonymy and synecdoche) consists in the free subordination of additional concepts to terms, creating secondary meanings.

The use of metaphor is a central feature of Lucretian (and, more broadly, Epicurean) linguistic creativity. The principal motive behind the Epicurean use of metaphor is that it offers a resource for assigning names to the many abstracts and imperceptibles that feature in Epicurean doctrine. As a result, Epicurean texts are written in a specialized philosophical dialect in which many perfectly common words bear technical, metaphorical meanings in addition to their ordinary ones.³ On a number of occasions in *DRN*, Lucretius presents his own lexicon in just this way: as a specialized dialect in which ordinary Latin terms bear new, technical meanings. He often does so using first-person plural verbs, casting himself as a member of an Epicurean linguistic community, which his reader is invited to join. This process begins immediately after the poem's opening hymn, when Lucretius describes atoms as 'the things that we, when giving our account of the world, are accustomed to name "matter", and "bodies generative of things", and "seeds of things", and also to call "first bodies"'.⁴ The introduction of void, at 1.329–69 is similarly rounded off with a reference to 'that which is mixed in things, which we seek out with shrewd reasoning and call "void"'.⁵ Lucretius puts great effort into stressing that, in the technical dialect of the poem, the term '*inane*' (an adjective meaning 'empty') is used as a noun, meaning 'void', with the clause *quod inane vocamus* ('which we call "void"')

³ The characterization of metaphorical language as a dialect is taken from Skulsky 1996.

⁴ 1.58–61: *quae nos materiem et genitalia corpora rebus | reddunda in ratione vocare et semina rerum | appellare suemus et haec eadem usurpare | corpora prima.*

⁵ 1.368–9: *id quod ratione sagaci | quaerimus, admixtum rebus, quod inane vocamus.*

being used no fewer than four times between 1.369 and 1.507.⁶ At 4.30 Lucretius introduces the technical term ‘*simulacra*’ in much the same way, promising to demonstrate that ‘there exist what we call “*simulacra*” of things’.⁷ Finally, at 1.458 Lucretius justifies his use of ‘*eventa*’ to refer to eliminable properties, presenting the term as habitual usage among Epicureans: *haec soliti sumus, ut par est, eventa vocare*.⁸ Like Lucretius, Epicurus himself draws attention in this way to the peculiar usages of his own philosophical dialect, characterizing himself and his fellow Epicureans as members of a group with discrete linguistic habits.⁹ It is likely that this inspired Lucretius’ own practice in such cases.¹⁰

Learning the specialized metaphorical dialect of *DRN* demands a degree of linguistic flexibility on the part of readers. As they progress through the poem, readers will encounter everyday Latin terms given new meanings and transposed into unfamiliar roles and contexts. The effect will be one of initial defamiliarization, and (ideally) gradual habituation. Lucretius’ regular characterization of his own language as a common possession of his philosophical community may be interpreted as a feature of his didactic technique: to learn the language of *DRN*, he suggests, is to be included in a new linguistic community whose members share in a specialized dialect.¹¹ There is a social element, then, to Lucretius’ use and presentation of metaphorical language. In Skulsky’s terms (1996, 365): ‘The figurative speaker is

⁶ At 369, 426, 439, 507, and again at 1074; compare Epicurus, *Ep. Hdt.* 40: ὁ κενὸν . . . ὀνομάζομεν.

⁷ The same phrase occurs at 4.50, within the ‘first draft’ (4.45–53) of what later became 4.26–44; see Sedley 1998, 39–42.

⁸ The addressee is later invited to adopt this usage: *sed magis ut merito possis eventa vocare* (1.481).

⁹ e.g. *Ep. Hdt.* 40: ὁ κενὸν . . . ὀνομάζομεν; 67: ὅτι τὸ ἀσώματον λέγομεν (‘which we call “incorporeal”’); *Ep. Pyth.* 89: μετακοσμίῳ, ὃ λέγομεν μεταξύ κόσμων διάστημα (‘an interworld, which is what we call the space between worlds’); *Nat.* 28 fr. 12 col. 3.2–5 Sedley: εἰ δὲ τότε [τα]ῦτό τι διαν[ο]οῦμενοι ἐλέγομεν κατὰ [τ]ὴν [ἐ]κκειμένην ἐρμηνίαν (‘if in those days we used to express an opinion equivalent, in the terminology which we then employed’; translation: Sedley 1973); *Nat.* 28 fr. 8 col. 4.4–9 Sedley: οὐ[τ]ω[ς] ο[ὐ]δὲν καὶ τ[ο]ῦτο [ν]οεῖται [ἐν] ἐκ[κ]ήναις τα[ῖς] λέξ[ε]σιν ἅς ἐν [τῶι] περὶ [τῶν] πρῶ[των] γινώ[σκ]όντων [ν]αὐ[τ]οὺς γεγράφαμεν. (‘Consequently void too is given this meaning in those expressions which we have written in our work concerning the men who first had knowledge of them’; translation: Sedley 1973).

¹⁰ This feature of Lucretius’ and Epicurus’ inclusive style is analysed in more depth at Taylor forthcoming a.

¹¹ See further: Taylor forthcoming a.

engaged in a complex social endeavor. He is demonstrating a new language, recruiting speakers, and establishing a subtle rapport with the prospective recruits.’ In the following discussion, Epicurus’ and Lucretius’ attitudes toward the limits of metaphorical language will be explored.

2.2. LUCRETIUS ON SYNECDOCHE: THE PARTS OF THE SOUL

A good example of how the reader of *DRN* is expected to alter their own linguistic understanding in order to interpret the technical language of the poem is provided by Lucretius’ terminology for the soul and its parts. A scholion to the *Letter to Herodotus* (preserved at Diog. Laert. 10.66) explains how Epicurus distinguished between the rational and irrational parts of the soul, the former located in the chest, and the latter spread throughout the body.¹² Lucretius uses distinct technical terms to refer to each, assigning the term ‘*animus*’ to the rational part, and ‘*anima*’ to the irrational part. While he was surely the first to employ the Latin words ‘*animus*’ and ‘*anima*’ in this specialized Epicurean sense, he was by no means the first to use them to differentiate aspects of human psychology.¹³

Lucretius does not have a distinct technical term with which to refer to the whole soul, conceived as a unity (compare Epicurus, for whom the word *ψυχή* could carry out this function).¹⁴ Instead, when he needs to refer to the whole soul, Lucretius often uses one or other of the two terms (*animus* and *anima*) that are elsewhere reserved for one of its parts. While the narrower, technical sense of each term is introduced separately (*animus* at 3.94, helpfully glossed as *mentem quam saepe vocamus*, ‘that which we often call the mind’; *anima* at 3.117),

¹² καὶ τὸ μὲν τι ἄλογον αὐτῆς, ὃ τῷ λοιπῷ παρεσπάρθαι σώματι· τὸ δὲ λογικὸν ἐν τῷ θώρακι, ὡς δῆλον ἔκ τε τῶν φόβων καὶ τῆς χαρᾶς. See also Diogenes of Oinoanda fr. 37. col. 1.5–7 Smith; 312–13 Usener.

¹³ See Accius *trag.* 296 R³ (= 589 Dangel) and Varro, *Menipp.* fr. 32 Cèbe, cited together by Nonius (426.25–9), and discussed in relation to Lucretius by Dalzell (1996, 98–9); Wackernagel 1920–4, 2.13–14 (= 2009, 415–17). The fact that Lucretius was willing to introduce the terms together, without explanation, at 1.131 (*unde anima atque animi constet natura videndum*) suggests that he expected his reader to understand without difficulty that they could refer to distinct entities.

¹⁴ See Kenney 2014, 91.

later in the exposition each term comes, on occasion, to be used for the entire soul. So, at 3.143 and 150 we find the irrational soul described as *pars animae/animai*,¹⁵ while the phrase *natura animi* at 3.175, 237 and 708 must refer to the nature of the soul in both its parts. This practice may be analysed as an instance of *pars pro toto* synecdoche:¹⁶ using a term technically reserved for part of the soul to refer to the whole.¹⁷

Lucretius' soul terminology thus features a degree of semantic plasticity. Each of the terms *animus* and *anima* bears more than one possible meaning: the specialized Epicurean meaning that each term normally bears in the poem (a part of the soul), and a broader meaning (the whole soul). Which meaning is present at any one time must be worked out from the context. Lucretius' readers, then, are expected both to accept new, technical meanings of familiar terms and to be sufficiently flexible in their grasp of Lucretian language as to allow the semantic ranges of those same terms to be, on occasion, altered or extended.

Pars pro toto synecdoche with *animus* and *anima* is not limited to the arguments of 3.94–416 (the first long section of the book, following the proem). The use of the same trope within the long central section—the catalogue of 30 arguments against the immortality of the soul, at 3.425–829—is explicitly flagged in the introductory lines at 3.417–24:

nunc age, nativos animantibus et mortalis
esse animos animasque levis ut noscere possis,

¹⁵ See also 3.275 and 280–1, where the fourth nameless substance in the soul is described, metaphorically, as 'the soul of the whole soul' '*anima est animae proporro totius ipsa*'; as 3.277 makes clear, *totius animae* here must refer to the soul in both its parts.

¹⁶ For which trope, see in Latin Cic. *De Orat.* 3.168 and Quint. *Inst.* 8.6.19–20.

¹⁷ Up to a point, this use of synecdoche to fill a lexical gap has Epicurean pedigree: at *Ep. Hdt.* 40, Epicurus distinguishes between permanent and accidental properties using '*συμπτώματα*' to refer to accidental properties and '*συμβεβηκότα*' to refer to permanent properties. Sextus, however (*M.* 10.220–1, on which, see Sedley 1988, 304–11), reports Demetrius Lacon as saying that the term *συμβεβηκότα* was used by Epicureans as a generic term for properties of both kinds—a claim which is borne out by the usage of *συμβαίνειν* at *Ep. Hdt.* 71; on this question, see further, pp. 184–6. This genus–species synecdoche in Epicurus has clear similarities with the Lucretian part–whole synecdoche outlined above. There is a significant difference, however: while in Epicurus only one term for species (*συμβεβηκότα*) was also used as a generic term, in Lucretius each term for a part of the soul could also be used for the whole. Lucretius' synecdoche, in this respect, is less systematic than that of Epicurus, and arguably more liable to confuse a reader.

conquisita diu dulcique reperta labore
 digna tua pergam disponere carmina vita. 420
 tu fac utrumque uno subiungas nomine eorum
 atque animam verbi causa cum dicere pergam,
 mortalem esse docens, animum quoque dicere credas,
 quatenus est unum inter se coniunctaque res est.

Come now, that you may know that the *animi* and light *animae* of creatures are born and are mortal, I shall proceed to set before you verses worthy of your status, long searched-for and uncovered with sweet labour. See that you subordinate each of them to a single name, and when, for example, I proceed to say '*anima*', showing it to be mortal, understand me also to say '*animus*', in so far as they constitute a unity and a combined thing.

Not every usage of the terms *animus* and *anima* in the arguments that follow is in fact synecdochic: several of these arguments feature premisses that are specific to one or other part of the soul.¹⁸ The thrust of 3.421–4, then, is not that the reader should interpret every appearance of the terms *anima* or *animus* as referring to the whole soul, but rather that every assertion of the mortality of *anima* or *animus* should be also understood as an assertion of the mortality of the other part. This claim is justified (3.423–4) with reference to the fact that the rational and irrational parts of the soul together make up one combined and indivisible unit; as is stated explicitly at 3.558–79, neither part can survive without the other. An argument for the mortality of one is thus an argument for the mortality of both; to say that the rational soul is mortal is also to say that the irrational soul is mortal, and vice versa. This passage is an explicit testament to Lucretius' expectation that his readers must admit a certain flexibility into their mental lexicon. The meanings of terms in *DRN* are not fixed, but shift according to context and requirements; as readers progress through the poem, their grasp of the language is expected to shift accordingly, as they become more familiar with the peculiarities of the poem's philosophical dialect.

Lucretius' terminology in this passage merits closer inspection. The verb *subiungas* (3.421) is a translation of Epicurus' technical term *ὑποτάσσω*, which, as we saw earlier (p. 38), was used to describe

¹⁸ Kenney (2014, 132) goes too far in stating that the distinction between rational and irrational parts is 'for the most part immaterial' in the arguments of 417–829. It may be immaterial to the general message of the passage (because the mortality of one part entails the mortality of the other), but it is by no means immaterial to the workings of the individual arguments from which that general message emerges.

the process by which concepts were subordinated to terms.¹⁹ Identifying *subiungas* at 421 as a translation of ὑποτάσσω confirms that Lucretius was familiar with the Epicurean theory of the subordination of concepts to words.²⁰ It also demonstrates, as has already been pointed out, that the act of subordination was considered by Epicureans to be under the control of language users. Most usefully for our purposes here, it tells us how Lucretius conceived of the psychological processes involved in the use and interpretation of synecdoche (and, we may assume, related tropes like metaphor and metonymy).

As each part of the soul is introduced and explained (at 3.94 and 117), the reader forms, under Lucretius' instruction, concepts of the irrational and rational parts of the soul, which are subordinated to the terms *anima* and *animus* respectively. Thereafter, encountering (e.g.) the word *anima* should bring to mind an impression of the irrational part of the soul (see Diog. Laert. 10.33, quoted and discussed at pp. 36–8). In certain situations, however (such as in the claim 'the *anima* is mortal'), not only should the concept of the irrational part of the soul be subordinated to the term *anima*, but also the concept of the rational part. This is an instance of *pars pro toto* synecdoche, and ensures that the statement 'the *anima* is mortal' will be interpreted as being equivalent to 'the whole soul is mortal'. For an Epicurean, then, synecdoche and related tropes involve the subordination of additional concepts to a word in order to create a new meaning. In particular, *pars pro toto* synecdoche involves the subordination of additional part concepts to a term usually used to refer to a single part, in order that said term may refer to all parts together.

2.3. EPICURUS: THE STANDARD STYLE

Diogenes Laertius (10.13) characterized Epicurus' style as follows:

κέχρηται δὲ λέξει κυρία κατὰ τῶν πραγμάτων, ἣν ὅτι ἰδιωτάτῃ ἐστίν,
 Ἀριστοφάνης ὁ γραμματικὸς αἰτιάται. σαφὴς δ' ἦν οὕτως, ὥς καὶ ἐν τῷ
 Περὶ ῥητορικῆς ἀξιοῖ μηδὲν ἄλλο ἢ σαφήνειαν ἀπαιτεῖν.

¹⁹ Not only may *subiungo* be considered a morphological calque of ὑποτάσσω (in so far as it replicates its structure), but there is significant overlap between the ordinary meanings of the terms, each of which can be used to mean 'subjugate', or 'subject'; for calques in Lucretius, see below, Chapter 6.

²⁰ Lucretius' expression simplifies the matter somewhat, asking the reader not to subordinate the concepts of both parts of the soul to each term, but simply to subordinate both parts of the soul (*utrumque . . . eorum*) to each term.

He employs a standard style in his terminology for things, a style that Aristophanes the grammarian calls 'most characteristic'. He was so clear that even in his *On Rhetoric* he deemed nothing more worthy of praise than clarity.

Two closely related stylistic norms are here attributed to Epicurus: a general preference for using a standard style (*κυρία λέξις*) and the promotion (in his *On Rhetoric*)²¹ of clarity as a praiseworthy aspect of style.²² To qualify a name as *κύριος* ('standard') is to identify it as the current, ordinarily accepted word with which to refer to a given entity.²³ The standard name for a thing may be contrasted with a foreign name, a metaphor, a neologism, or with any other non-standard form of expression.²⁴ Given that standard names are often contrasted with metaphors, we might interpret Diogenes' characterization at 10.13 as implying that Epicurus generally avoided novel or unfamiliar metaphorical forms of expression.²⁵ Some readers have connected the principle of clarity attributed here to Epicurus to the principle stated at *Ep. Hdt.* 37–8 that words should be interpreted in accordance with their primary subordinated conceptions, concluding that, for Epicurus, clarity required that words should be used in their primary, ordinary senses only.²⁶

Epicurus' own philosophical terminology, however, is full of expressions used in ways that stray from their ordinary meanings in ways that may rightly be called metaphorical. To take just a few

²¹ 54 Usener.

²² On the judgement of Aristophanes of Byzantium (fr. 404 Slater), see Milanese 1989, 60–5.

²³ LSJ s.v. *κύριος* §II.5; Lausberg 1998, §533; Milanese 1989, 75 n. 31. The pairing of the standard style with clarity was firmly established by Aristotle: *Poet.* 1458a; *Rh.* 1404b; see further esp. Milanese 1989, 17–21; 51–4; Marković 2008, 88–9, with bibliography.

²⁴ See Arist. *Poet.* 1458a, 31–4; *Rh.* 1404b. For the contrast between standard terms and metaphors, see esp. Dion. Hal. *Comp.* 21; Phld. *Rh.* 2, col. 30.19–35 Longo Auricchio; *Rh.* 4, 1.174–5 Sudhaus.

²⁵ Well-established metaphors used in ordinary speech would still be permissible under a standard style. For apparent openness to established usage in Epicurus, see Sedley 1973, 22–3.

²⁶ Thus Blank 1995, 184: 'Epicurus . . . derived from his physiology, particularly the doctrine of *πολύψυεις*, a philosophy which insisted that words be used in their ordinary and clear senses and that clarity was the only goal of writing'; Obbink 1995, 193: 'Epicurus . . . insisted on clear expression (*σαφήνεια*), i.e. using words in accordance with their primary mental images and being aware of their current meanings.'

examples: *πρόληψις*,²⁷ *κατάληψις*, *περιληπτόν*, *ἐπιβολή*, *μετάβασις*, and *ὑποτεταγμένον* are all terms used by Epicurus in specialized technical senses quite distinct from what may be considered their ordinary or primary applications. In the case of the term *πρόληψις*, Cicero states explicitly that Epicurus was the first to use it in the sense he gives it, which, if true, constitutes a clear case of creative metaphor.²⁸

Metaphor, for Epicurus, is a highly valuable tool in the creation of a philosophical vocabulary, as indeed it is likely to be in the creation of any new technical vocabulary.²⁹ Like the *συνειδότες* of *Ep. Hdt.* 76, Epicurus introduces into discussion numerous entities that were previously unheard of (*οὐ συνορώμενα*). Epicurean doctrine features certain imperceptible items, whose existence and attributes must be inferred from the content of our everyday experiences, as well as a host of abstract concepts. Few, if any, of these things come with names already attached to them. As such, strategies must be developed for identifying suitable names, and one of the strategies that most appealed to Epicurus, it seems, was metaphor: taking a term from ordinary language and reapplying it to the newly introduced item or concept. We are left, then, with what looks like a paradox: not only does Epicurus regularly engage in metaphor; it is arguably central to his linguistic method. At the same time, we have testimony from Diogenes Laertius stating that he employed a standard style (*κυρία λέξις*), as well as the evidence of *Ep. Hdt.* 37–8, where Epicurus states that we should attend to the primary meaning of each word.

²⁷ See Wigodsky 1995, 63.

²⁸ N.D. 1.44: *sunt enim rebus novis nova ponenda nomina, ut Epicurus ipse πρόληψιν appellavit, quam antea nemo eo verbo nominarat* ‘for new names must be established for new things, just as Epicurus himself called ‘*πρόληψις*’ that which no one had named using that term before’. Note that Cicero here does not call the term *πρόληψις* an Epicurean neologism; he states only that he was the first to use it in the sense he did (suggesting in fact that the term pre-existed Epicurus’ use of it). Compare Ac. 1.41, on Zeno’s development of the term *κατάληψις* (used, we know, by writers as early as Thucydides): *sed cum acceptum iam et approbatum esset, comprehensionem appellabat, similem eis rebus quae manu prenderentur; ex quo etiam nomen hoc duxerat, cum eo verbo antea nemo tali in re usus esset*. ‘But when this was accepted and approved, he called it “apprehension”, being similar to those things which are grasped by the hand; from which he had in fact taken the name, since nobody before him had used this term in such a meaning.’

²⁹ Cf. Phld. *Rh.* 4, 1.175 Sudhaus: *πᾶσα τέχνη φων[ῆ]ν οὐ δύναται προ[ί]εσθαι στερ[η]θείσα τῆς ἐκ τῶν μεταφορῶν εὐχρησ[τί]ας* (‘No τέχνη can utter a sound if deprived of the use of metaphors’).

2.4. NECESSARY AND UNNECESSARY
METAPHOR

This paradox may be resolved, I suggest, if we incorporate into our analysis a distinction between two different kinds of metaphor. The first, which I will here term ‘necessary metaphor’, involves the transfer of a name from something that already has a name to something that is as yet unnamed. It is a process driven by the lack of a name for the unnamed thing. The second, which I will here term ‘unnecessary metaphor’, involves the replacement of a thing’s existing name with the name of another thing. This distinction was familiar in ancient tropology: it forms the basis for Tryphon’s categories of *κατάχρησις* (my necessary metaphor) and *μεταφορά* (my unnecessary metaphor),³⁰ and was recognized by Cicero, who, in *De Oratore*, presents the history of metaphor as a development from necessary to unnecessary forms, the former motivated by need, the latter by the pleasure it brings.³¹ Each of the instances of Epicurean metaphorical terminology listed at p. 51 falls under the category of necessary metaphor: nameless theoretical entities are introduced by Epicurus, and names are selected, out of the available stock of names, with which to refer to each one.

Of these two types of metaphor, only novel instances of unnecessary metaphor would be strictly incompatible with the standard style. If, say,

³⁰ See *Trop.* III 193.4–7 Spengel: διαφέρει δὲ μεταφορά καὶ κατάχρησις, ὅτι ἡ μὲν μεταφορά ἀπὸ κατονομασμένου ἐπὶ κατωνομασμένον γίνεται, ἡ δὲ κατάχρησις ἀπὸ κατονομαζομένου ἐπὶ ἀκατονόμαστον (‘There is a difference between metaphor and catachresis: metaphor happens from a named thing to a named thing, whereas catachresis happens from a named thing to an unnamed thing’). Aristotle describes necessary metaphor at *Poet.* 1457b25–30, and Philodemus (*Rh.* 4, 1.177 Sudhaus) refers to those according to whom ‘the need of metaphor’ plays a role in the generation of metaphorical similarity: Ἐνιοὶ δὲ φασιν καὶ τῆς ὁμοιώσεως ἕνεκεν αὐτ[ῆς] λαμβάνεσθαι τὰς μεταφοράς· οὐ [μὲν] τῆς ὁμοι[ώ]σεως αὐτῆς καθ’ αὐτὴν [ὄρ]μωμένης ἀλλὰ διὰ τῇ[ν] χρεῖαν [ἐ]ν[ε]κα τῆς μεταφορᾶς.

³¹ *De Or.* 3.155: *tertius ille modus transferendi verbi late patet, quem necessitas genuit inopia coacta et angustiiis, post autem iucunditas delectatioque celebravit* (‘The third mode—that of using metaphor—has a wide application. It was necessity, caused by poverty and shortage, that first produced metaphor, but afterward its pleasantness and charm made it popular’; translation: May and Wisse 2001); see also *De Or.* 3.157; *Orat.* 82, 92. On metaphor and pleasure, cf. *Arist. Rh.* 1405a: καὶ τὸ σαφὲς καὶ τὸ ἡδὺ καὶ τὸ ξενικὸν ἔχει μάλιστα ἡ μεταφορά. On the relevance of this passage of Cicero to Lucretius’ own linguistic task, see the analysis of Shearin 2015, 165–8 (and, more generally, 141–89).

a standard name for a given object already exists, then to use a different name to refer to that object metaphorically would be a breach of the standard style. If, however, no standard name exists for a given entity, then one cannot rely on the standard style: a name for it must be found from elsewhere.³² It is possible to imagine a set of stylistic principles according to which standard names should be used where possible, but metaphor is permitted in those cases where standard names are not available. Such a set of principles would outlaw novel uses of unnecessary metaphor while allowing novel uses of necessary metaphor. This set of principles, I suggest, were those of Epicurus.

Support for this account is provided by an important fragment of *On Nature* 28. At fr. 13 col. 5.3–12 sup. Sedley, Epicurus discusses the principles according to which names should be used and interpreted:

πάνν γὰρ οἶμαι σε πολλὰ ἂν ἔχειν προσ[ν]έγκασθαι ἃ ἐθεώρεις γελοῖους
[π]ώ[ς] τ[ι]να[ς] ἐγδεξαμένους καὶ π[ά]ν[τ]α μᾶλλον ἢ τὸ νοοῦμενον
κατὰ τὰς λέξεις, οὐκ ἔξω τῶν ἰθισμένων λέξεων ἡμῶν χρωμένων οὐδὲ
μετατιθέντων ὀνόματα ἐπὶ τῶν φανε[ρ]ῶν.

For I do not doubt that you could cite many cases, from your own past observations, of certain people taking words in various ridiculous senses, and indeed in every sense in preference to their actual linguistic meanings, whereas our own usage does not flout linguistic convention, nor do we alter names with regard to the objects of perception.

(Translation: Sedley 1973).

We have already encountered this passage in the context of our earlier discussion of Epicurean attitudes to ordinary language (p. 39). Here I am interested in the latter part of Epicurus' self-description: his claim that Epicureans 'do not alter names with regard to the objects of perception'. As Sedley has demonstrated,³³ the phrase here translated 'to alter names' (μετατιθέντων ὀνόματα) means to call something by a different name. As such, these lines do not amount to a general ban on the use of metaphor: as we have

³² See Dionysius of Halicarnassus, introducing terms for his three modes of composition (*Comp.* 21): ἐγὼ μέντοι κυρίως ὀνόμασιν οὐκ ἔχων αὐτὰς προσαγορεύσαι ὡς ἀκατονομάστους μεταφορικοῖς ὀνόμασι καλῶ τὴν μὲν αὐστηράν, τὴν δὲ γλαφυράν [ἢ ἀνθηράν], τὴν δὲ τρίτην εὐκρατον. ('Yet since I cannot call them by their standard names (in so far as they are nameless), I call them by metaphorical names: the first "austere", the second "smooth" [or "florid"]', the third "mixed").

³³ 1973, 58.

seen, some instances of metaphor (which I have termed 'necessary metaphor') do not involve calling things by different names. Novel acts of unnecessary metaphor, however, which involve calling an entity that already has its own name by a new name, would be precluded by such a principle. A preference for not changing names, as is expressed here by Epicurus, thus entails a preference for avoiding novel acts of unnecessary metaphor. It is telling that Epicurus qualifies his preference for not changing names as holding in cases involving the names of perceptibles (*τῶν φανερώων*); perceptible objects have names of their own, and so may be discussed in the standard style. The same may not be true of imperceptibles and abstracts.

With regard to the names of perceptible objects, then, Epicurus believed in following standard usage;³⁴ with regard to certain imperceptibles and abstracts, the lack of pre-existing names meant that necessary metaphor was a useful naming strategy on which to rely. As such, Epicurus' attitude to metaphor is neither wholly positive nor wholly negative, but ambivalent.³⁵

In Chapter 1, I argued for an interpretation of Epicurean naturalism according to which there may be preserved, in present-day speech, original connections between certain sound patterns and the preconceptions of the objects or object types to which said sound patterns first referred. These natural linguistic connections, preserved from the first stage of linguistic phylogeny, would be valuable to inquirers in so far as they offered a way of accessing the appropriate preconception for each line of inquiry. This etiolated form of referential naturalism was connected there to Epicurus' stress on the importance of using ordinary language in philosophical inquiry.

As we can now see, there are also grounds for positing a link between Epicurus' theory of referential naturalism and his self-professed avoidance of changing the names of perceptibles (and his

³⁴ We should not be surprised, however, to find occasional exceptions to this stated preference among Epicurus' writings. The encouragement to Pythocles, as reported by Diogenes Laertius (10.6; see further quotations from Plutarch and Quintilian at 163 Usener), to 'hoist sail and flee all education' may seem to constitute just such a breach. This particular example may be explained, however, as a deliberate allusion to the allures of Homer's sirens (see Asmis 1995, 17–19).

³⁵ My account is thus distinct from those which find no opposition to metaphor in the writings of Epicurus: see Clay (1996, 782 n. 7), for whom 'there is in fact no Epicurean prohibition against the use of metaphor, even in philosophic writing', and Wigodsky (1995, 62) for whom 'hostility to metaphor is ... hard to find in *On Nature* 28'.

consequent deployment of the standard style). Using the current, ordinary term for each perceptible thing allows one to rely on the connection between term and preconception that was forged in the early stages of linguistic phylogeny; to use a different term to refer to the same thing (thus breaching the Epicurean principle not to change the names of perceptibles) would be to jettison the valuable link between term and preconception that ordinary language, in most cases, will offer. On this reading, the avoidance of changing names for perceptibles (and the avoidance of novels acts of unnecessary metaphor that it entails) may be said to stem directly from Epicurus' more basic principle of the epistemological value of the natural history of language to philosophical inquiry.

Of course, the natural connections that emerged between terms, referents, and preconceptions during the first stage of linguistic phylogeny would only exist in cases featuring perceptible referents; the utterances of the first names, as we saw, were made in direct response to the reception of external perceptual stimuli. Accordingly, the assignment of names to imperceptibles requires less strict regulation than the assignment of names to perceptibles, and linguistic naturalism is of less direct value to this sphere of activity. So, while Epicurean linguistic principles imply an avoidance of novel unnecessary metaphor, necessary metaphor remains an allowable (and, indeed, significant) strategy for the assignment of names to entities lacking natural names of their own.

2.5. THE NAMELESS ELEMENT

In an earlier fragment of *Nat.* 28, Epicurus reflects on the correct procedure for assigning names:

... δὲ καὶ ἄνεν τῆς [τινῶν] ἐθισμῶν συνοικειώσεως ἐπιφέρω[ν τότε
ἔτι] νυχες, [μὴ] δῆλον ποιούσης τὸ πάντα φθόγγον ἐπιφέροντα δοξάζειν τόδε
τι κα[ὶ] τὴν τῶν ὀνομάτων κα[ὶ] π[ρ]αγματάων ἀδι[α]ληψία[ν ὁρ]ῶν
περ[ὶ] οὐσίης. *Nat.* 28 fr. 13 col. 2.3 inf.-3.2 sup. Sedley.

... and you also used in those days to assign [names] without adapting certain conventional usages, in order that you should not make plain the principle that by assigning any name one expresses a particular opinion, and see and reflect upon the indiscriminate treatment of words and objects. (Translation: Sedley 1973)

Here Epicurus appears to describe arbitrary naming practices previously ($\epsilon\tau\upsilon\chi\epsilon\varsigma$) employed by Metrodorus, according to which 'a thing can be referred to by any name at all and . . . no name is better than any other'.³⁶ This arbitrariness in Metrodorus' application of terms, according to Sedley, was later phased out in favour of a focus on the use of ordinary language (its shortcomings and ambiguities notwithstanding).³⁷ Sedley, whom I follow here, understands 'the principle that by assigning any name one expresses a particular opinion' to reflect Epicurus' mature view. The precise meaning of this phrase is not clear from its context among the fragments of *Nat.* 28; later (p. 59) I will suggest an interpretation based on other Epicurean texts and naming practices.

One thing this fragment makes clear is that Epicurus understood the assignation of names (one strategy for which consists in the 'adaptation of certain conventional usages') to be a process that requires reflection on the relationship between words and objects: despite Metrodorus' former naming practices, Epicureans did not believe that the assignation of names should be an arbitrary process. If the assignation of names in Epicurean terminology was not an arbitrary process, what were the principles underlying it? A partial answer is provided from a perhaps unexpected source: the one concept in Epicurean doctrine to which no name was ever assigned.

Epicureans believed that the soul was composed of three named substances—wind, heat, and air—plus a fourth, nameless element ($\tau\omicron\acute{\alpha}\kappa\alpha\tau\alpha\nu\acute{o}\mu\alpha\sigma\tau\omicron\nu$).³⁸ Each substance was thought to have its own function within the soul. As for the named substances, breath produces movement, air quietude, and heat warmth; a preponderance of any named substance within the soul also has certain observable effects on

³⁶ Sedley 1973, 22.

³⁷ Sedley 1973, 21–3, 62.

³⁸ *DRN* 3.231–42; Plut. *Adv. Col.* 1118de (314 Usener); Aëtius at Stobaeus, *Ecl.* 1.49.1^b Wachsmuth (315 Usener), on all of which, see Kerferd 1971. Strictly speaking, Aëtius and Plutarch each state that the three named elements are not heat, wind, and air but are like heat (Aëtius says 'fire'), wind, and air. Lucretius makes no such qualification, and Aëtius immediately drops it after the first sentence of the lemma (see further on this question Sharples 1980). For the notion of a nameless element, compare Cic. *Tusc.* 1.22 and pseudo-Clement of Rome, *Recognitiones* 8.15, in each of which a nameless element is attributed to Aristotle. (On this topic, see esp. Hahn 1982, 65–7, who questions whether Aristotle ever discussed a nameless element.) There are no grounds on which to posit a connection of any sort between the nameless element here attributed to Aristotle and the nameless element of the Epicurean soul.

character (see *DRN* 3.288–322). The fourth, nameless substance is responsible for sensation.³⁹

Epicurean inquiry required the discussion of both imperceptibles and abstracts, many of which, as we have seen, were assigned names via necessary metaphor. The fourth nameless substance in the soul is the only such entity in Epicurean doctrine not to be assigned a name—the only such entity for which available procedures for assigning names, including that of necessary metaphor, were not thought to work. Determining why this was may help illuminate the normal procedures and requirements for assigning names to new concepts, imperceptibles, and abstracts.

What was it, then, about the fourth substance in the soul that meant that it had to remain nameless? Plutarch provides the answer: not only does the fourth substance fall beneath the threshold of perception; it also evades the apprehension of the mind: ‘for clearly it is nothing ordinary, or easy, or capable of being apprehended’.⁴⁰ This, of course, is not true of other Epicurean imperceptibles: while atoms, for example, are imperceptible, we are able to grasp them intellectually and gain an understanding of what they are like; the same goes for void, and, of course, for the soul itself. The terms with which Lucretius introduces the fourth substance of the soul at 3.238–44 provide a clue as to what about the fourth substance renders it not merely imperceptible, but also inapprehensible:

nec tamen haec sat sunt ad sensum cuncta creandum,
nil horum quoniam recipit mens posse creare
sensiferos motus et mens quaecumque volutat.⁴¹ 240
quarta quoque his igitur quaedam natura necessest
adtribuatur; east omnino nominis expers,
qua neque mobilius quicquam neque tenuius extat
nec magis e parvis et levibus ex elementis;

Nor however are all these things [i.e. the three named elements composing the soul] enough to create sensation, since we cannot conceive of any of these being able to create the sense-bringing motions and whatever thoughts the mind revolves. And so a certain fourth nature must also be added to these; it

³⁹ Aëtius at Stobaeus, *Ecl.* 1.49.1^b Wachsmuth (315 Usener); *DRN* 3.238–42.

⁴⁰ *Adv. Col.* 1118e: φαίνεται γὰρ οὐ φάλλον οὐδὲ ῥάδιον οὐδὲ τοῦ τυχόντος εἶναι καταμαθεῖν.

⁴¹ et mens quaecumque volutat *Frerichs* : qu(a)edam qu(a)e mente volutat *codd.* Where textual issues in *DRN* are mentioned or discussed in this book, I draw on the report of Lucretian manuscript readings given in Deufert 2019.

is entirely without name, and there is nothing more mobile than it, nothing more fine, nothing composed of smaller or lighter particles.

The fourth substance, says Lucretius, is utterly unique. Its uniqueness lies not only in its exceedingly fine particles but also in the degrees of mobility and fineness it possesses itself. Accordingly, there is nothing in our empirical experience with which it may be compared. This does not hold true of other Epicurean imperceptibles. It is this feature, then, of the fourth substance—its total lack of comparanda in the observable world—that accounts for its lack of a name.⁴² We come to know of its existence only because the other substances in the soul (substances which we are quite familiar with and easily able to name) cannot conceivably be responsible for sensation (238–40), while sensation plainly does exist. Although we know that the fourth substance exists, therefore, we do not know anything about what it is like, because there is nothing else on earth like it.

This interpretation of the nameless fourth substance in the soul suggests that a lack of phenomenal experience that can give us an idea of what an imperceptible thing is like precludes us from giving it a name. This, in turn, suggests that, for Epicurus, the procedure for assigning names to imperceptibles (as well as to other newly introduced theoretical entities), involved the identification, via inference, of similarities between the imperceptible, on the one hand, and something of which we already have phenomenal experience, on the other; the latter's name could then be borrowed in an act of necessary metaphor. Given that no such similarity can be identified in the case of the fourth substance—we experience nothing remotely like it—it must remain nameless.⁴³

2.6. METAPHOR AND PRECONCEPTION

The principle that the use of necessary metaphor to assign a name to a previously unnamed entity should be guided by similarity between

⁴² See also Annas 1992, 139–41, for whom the nameless fourth substance in the soul is 'the only purely theoretical entity in Epicureanism' (139).

⁴³ We may note here that the Epicurean term for the nameless substance (τὸ ἀκατανόμαστον) is the same term used by both Tryphon (p. 52 n. 30) and Dionysius of Halicarnassus (p. 53 n. 32) for the status of entities that must be assigned a name via necessary metaphor.

the old and new referents of the name was recognized by ancient theorists, including both Cicero and Quintilian.⁴⁴ Such a similarity principle is readily identifiable in Lucretius' terminological choices. To take just two examples: '*semina*', a term whose primary meaning is 'seeds', is transferred into the atomic realm on the grounds that atoms bear seed-like qualities; '*imago*', a term meaning 'image' (compare Epicurus' 'εἰδωλον'), is transferred into the domain of perception theory in the light of the role played by image-bearing effluences in the Epicurean theory of visual perception. Both are instances of necessary metaphor, founded on a perceived similarity or connection between the primary referent of the name (an object or quality in the observable world) and the new referent (an imperceptible entity in Epicurean doctrine lacking a standard name of its own). Similarity, then, between observable and invisible domains appears to have shaped Lucretius' use of the naming strategy of necessary metaphor. I suggest that this was what Epicurus meant when he stated, in *Nat.* 28, 'the principle that by assigning any name one expresses a particular opinion' (see pp. 55–6): in assigning an existing name to something that previously lacked a name, one expresses the opinion that a certain similarity exists between that name's primary and new referents.

We saw earlier (pp. 34–52) that, on Epicurus' theory, each term has a primary concept subordinated to it. For some (but not all) terms, this relationship of primary subordination will have emerged during the first stage of linguistic phylogeny, when early humans came naturally to associate certain objects, recognized by type according to a preconception, with certain uttered sound patterns. Given the high value of preconceptions in guiding the course of inquiry, the transparent access that these terms, used in their ordinary senses, provide to their underlying preconceptions is of major value to the inquirer. Accordingly, the primary function of the advice given at *Ep. Hdt.* 38 to 'look to the first concept subordinated to each term' is to give readers a reliable method of equipping themselves with the preconceptions appropriate to each inquiry. This in turn motivates Epicurus' principle that words must be used in their

⁴⁴ Cic. *De Or.* 3.155, 157, 161–2; *Orat.* 93; Quint. *Inst.* 8.6.8, 16. See also Aristotle, *Poet.* 1457b; Phld. *Rh.* 4, 1.177 Sudhaus: "Ὑνιοι δὲ φασιν καὶ τῆς ὁμοιώσεως ἔνεκεν αὐτ[ῆς] λαμβάνεσθαι τὰς μεταφοράς.

ordinary senses, and that the names of perceptible things should not be changed.

An obvious limitation to such a theory is presented by imperceptibles.⁴⁵ Given that preconceptions are formed in direct response to perceptual impressions (Diog. Laert. 10.33), there are many entities in Epicurean doctrine of which there can be no preconception. Void, for example, is a theoretical entity of which we have no direct sensory experience; its existence must be inferred from other observable evidence. As such, it has no preconception of its own, and accordingly an inquiry into void could not be guided by a preconception of void. Despite this apparent limitation, however, Epicurus' advice concerning the role of the first subordinated concept in guiding inquiry is not limited to inquiries into perceptibles: rather, it is wholly unrestricted: 'For it is necessary that the first concept corresponding to each word (*καθ' ἑκαστον φθόγγον*) should be seen' (*Ep. Hdt.* 38). This requirement, we may assume, was thought to hold even for words used in secondary, metaphorical senses.

The identification of a principle of similarity at the heart of Epicurus' strategy for assigning names by necessary metaphor helps to explain how the advice to look to each word's primary subordinated concept could bear fruit even in cases where words are used metaphorically. Given the similarity that should exist between primary and secondary referents of a term, attending to the primary concept underlying a term may help an inquirer more accurately to conceptualize its secondary, metaphorical referent. On this reading of Epicurus' theory, the correct way to use and interpret metaphorical philosophical language is to emphasize and bear in mind the similarities between primary and secondary referents.⁴⁶ Looking to a familiar primary conception underlying a term may thus be useful in interpreting that term even when it is used in a secondary, metaphorical sense.⁴⁷

⁴⁵ A similar limitation would be felt by inquirers into artificial things, which, like imperceptibles, lack preconceptions of their own (Fine 2014, 235–7).

⁴⁶ Here see Wigodksy 2009, 20: 'It may well be that Epicurus himself did not go beyond arguing that metaphorical uses inevitably suggest the words' basic meanings.'

⁴⁷ Since the production of metaphor is a matter of free choice, there is no guarantee that there will always be an appropriate degree of similarity between the metaphorical term's referent and the object of its primary subordinated conception. As such, the unrestricted advice offered at the start of the letter may only be appropriate in contexts where the production of metaphor is strictly controlled according to Epicurean principles; Epicurus' own text, of course, is an example of such a context.

2.7. LUCRETIUS ON NECESSARY METAPHOR AND METONYMY

Necessary metaphor is a primary strategy in Lucretian vocabulary formation, and its patterns of use in *DRN* will be a central concern of the next chapter. Lucretius reflects explicitly on necessary metaphor only once in the poem (at 3.130–5, concluding his arguments against the harmonic theory of the soul). Elsewhere, at 6.906–9, he reflects on the related trope of necessary metonymy.

At 3.130–5 Lucretius concludes his arguments (begun at 3.94) against the idea that the soul is not a part of the body, but is rather a harmonic condition of the whole.⁴⁸ After providing arguments that neither the *animus* nor the *anima* is a condition of the body, Lucretius concludes by rejecting the label given by philosophers to the offending theory:

quapropter quoniam est animi natura reperta	130
atque animae quasi pars hominis, redde harmoniai	
nomen, ad organicos alto delatum Heliconi,	
sive aliunde ipsi porro traxere et in illam	
transtulerunt, proprio quae tum res nomine egebat.	
quidquid id est, habeant.	135

Therefore, since the nature of *animus* and *anima* has been found to be, as it were, a part of man, give back the name ‘harmony’, brought down to the musicians from lofty Helicon, or perhaps they themselves drew it from elsewhere and applied it to that thing which then was lacking a name of its own. Whatever the case, let them keep it.

After rejecting the metaphorical application of the term ‘harmony’ to the soul, Lucretius entertains different possible explanations of how musicians (from whom, it is implied, the term is borrowed) came to use it themselves. Either it was given to them by the Muses or they borrowed it from some other domain and applied it to musical harmony, which at that time lacked a name of its own (a *nomen proprium*, 133–4). The term used for such borrowing (‘*transtulerunt*’) is used here in a technical tropological sense that is unique in *DRN*.

⁴⁸ The term ‘harmony’ here refers to the way in which an instrument is stringed: the relative tautness of each string contributes to the harmony of the whole instrument. The theory is described in more detail at Cic. *Tusc.* 1.19, and there attributed to Aristoxenus; it is defended by Simmias at Plato, *Phd.* 85e–86d.

Lucretius' technical use of this term has been influenced by the Latin rhetorical tradition, in whose lexicon this sense of '*transfero*' (a calque of the Greek *μεταφέρω*) is regularly encountered.⁴⁹

Lines 133–4 make it quite clear that Lucretius was aware of and willing to reflect on the phenomenon of necessary metaphor: one possible (*sive*, 133) explanation of musicians' use of the term 'harmony', he says, is that they transferred it from a different domain (*aliunde*) in order to fill the gap in the lexicon created by the concept of musical harmony, which then lacked a name of its own.⁵⁰ This is necessary metaphor. The use, by some philosophers,⁵¹ of the term 'harmony' to refer to the soul as a condition of the body, constitutes a further case of necessary metaphor: a theoretical entity (in this case a condition of the human body) is posited, and a term is taken from a distinct domain of experience (i.e. music) with which to refer to it. The term in question, 'harmony', is chosen because of a perceived similarity between musical harmony as a condition of an instrument's strings and psychic harmony as a condition of the body's parts. Lucretius rejects the term (*redde harmoniai nomen*), because (*quoniam*, 130) he rejects the underlying theory: the soul is not a condition of the body but rather a part of it.⁵² Lucretius' rejection of the term, then, is made not on linguistic grounds (i.e. not on the grounds that the metaphor itself is inappropriate), but rather for reasons based in extralinguistic reality: there exists no psychic condition of the body (the harmonic theory is false), and so to use the term 'harmony' to refer to said condition is, in Epicurean terms, to use an empty word.

The scope and significance of Lucretius' rejection of the term 'harmony' here has been widely misunderstood by commentators.

⁴⁹ See Marković 2008, 95. For combination of *transfero* with mention of *verba propria*, see the discussion of *ornatus* at Cic. *De Or.* 3.149.

⁵⁰ See Marković 2008, 95.

⁵¹ The introduction to the arguments against the harmonic theory of the soul has fallen out of the transmitted text following 3.97. It is likely, however, that, in accordance with his usual practice, Lucretius left the harmonic theorists unnamed.

⁵² At 3.131, Lucretius calls the combined nature of the soul '*quasi pars hominis*'. The apologetic '*quasi*' is accounted for by the fact that each part of the soul, *animus* and *anima*, is a part of the body in a slightly different sense. The *animus* is a part of the body in the same sense that the feet and the eyes are parts of the body (3.96–7); the *anima* is a part of the body in the sense that it is a collection of particles with a discrete function (3.124–7) that can be physically dissociated from the rest of the body (as occurs in death: 3.121–3).

Leonard and Smith's gloss on *habeant* (135, 'let them keep it') is representative: 'i.e. we do not wish to use the metaphorical term, or indeed any indirect or metaphorical term, to describe the soul'.⁵³ The passage is thus read as a repudiation not only of the term 'harmony' but also of the use of metaphor *tout court*. This supposed antipathy to metaphor is then explained with reference to an 'Epicurean' position according to which words should be used in their primary senses only (a claim erroneously derived from *Ep. Hdt.* 38, Diog. Laert. 10.13, or *Nat.* 28 fr. 13 col. 5 Sedley);⁵⁴ in rejecting the name 'harmony', then, it is said that Lucretius 'befolgt eine methodische Regel Epikurs'.⁵⁵ On the contrary, there is no suggestion in this passage that Lucretius' rejection of 'harmony' is down to a broader antipathy towards metaphor; nor, indeed, is there any 'methodological rule' of Epicurus which he could be following in this instance: any Epicurean antipathy towards metaphor, as we have seen, was limited to novel uses of unnecessary metaphor in the context of terms for perceptibles (*τὰ φανερά*). Lucretius is quite clear as to why he rejects the term 'harmony': its supposed referent—the soul as a harmonic condition of the body—does not exist. 3.130–5, then, does not constitute evidence of Lucretian antipathy towards necessary metaphor (or, indeed, towards metaphor of any kind). Instead, it provides good evidence that Lucretius was aware of and willing to reflect on the lexical and semantic mechanisms underlying one of his principle strategies for vocabulary formation, namely necessary metaphor.

At 6.906–9 (introducing the discussion of magnetism) Lucretius describes a case of necessary metonymy:

quod superest, agere incipiam quo foedere fiat
naturae, lapis hic ut ferrum ducere possit,
quem Magneta vocant patrio de nomine Grai,
Magnetum quia sit patrii in finibus ortus.

⁵³ 1942, 435.

⁵⁴ Heinze 1897, 66–7 (citing *Ep. Hdt.* 38, Diog. Laert. 10.13, and *Nat.* 28 fr. 13 col. 5 Sedley); Merrill 1907, 492 (citing *Ep. Hdt.* 38); Catrein 2003, 167–9 (citing *Ep. Hdt.* 38 and Diog. Laert. 10.13); Kenney 2014, 95–6 ([mis-]citing *Ep. Hdt.* 38, and comparing Cic. *Fin.* 2.6).

⁵⁵ Heinze 1897, 67, who continues: 'Somit steht auch hier der Gedanke im Hintergrunde, dass, da doch jede Übertragung eines Wortes auf fremdes Gebiet schon an sich die Schärfe des Begriffs gefährde, eine zwiefache Übertragung doppelt misslich sei.'

offspring of their own; on which account she has deservedly obtained the mother's name.

linquitur ut merito maternum nomen adepta
terra sit, e terra quoniam sunt cuncta creata.

It remains that the earth has deservedly obtained the mother's name, since all things were created from the earth.

quare etiam atque etiam maternum nomen adepta
terra tenet merito, quoniam genus ipsa creavit
humanum atque animal prope certo tempore fudit
omne quod in magnis bacchatur montibu' passim,
aerisque simul volucres variantibu' formis. 5.825

Wherefore, again and again, the earth, having obtained the mother's name, deservedly bears it, since she herself created the human race, and poured forth, almost at a fixed time, every animal that runs wildly here and there in great mountains, and at the same time the birds of the air, in their various forms.

Lucretius is unequivocal: so sure is he of the appropriateness of the name 'mother' to the earth that he asserts it three times. He is also perfectly clear about why he considers the name to be appropriate: the earth's historical generative (2.994–5; 5.796, 822–5) and nurturing (2.992, 996–7) roles mean that it has deservedly (*merito*) earned the name 'mother'. There is an implied additional premiss to the argument, namely that generative and nurturing roles are defining characteristics of mothers. Sharing some of these defining characteristics is considered to be sufficient grounds for the earth to be assigned the name 'mother' in addition to its ordinary name ('*terra*'). Recast in the terms of Epicurean linguistic theory, mothers share certain ineliminable properties, which are bundled together in the preconception of mother (the primary conception subordinated to the word 'mother').⁵⁸ Enough of these ineliminable properties are shared by the earth to warrant using the term 'mother' in a secondary, metaphorical sense to refer to it. A reader, encountering the phrase 'mother earth', may profit by looking to the primary conception subordinated to the word 'mother', which would convey to him or her valuable information about the earth's historical generative and nurturing powers.

⁵⁸ For Epicurean preconceptions as bundles of ineliminable properties, see Betegh 2006, 280; Sedley 2018, 112.

What we find in these three passages, then, is evidence of a permissive Lucretian attitude towards unnecessary metaphor in the case of the term 'mother' being used of the earth. While the earth already has a name of its own, under the right circumstances (i.e. given a sufficient degree of similarity between its characteristics and the defining characteristics of mothers), the earth can take on the additional name of 'mother'. We should note here that this is not a novel deployment of unnecessary metaphor by Lucretius (and so need not be seen as a breach of the stricture against changing the names of things laid down in *Nat.* 28), but is rather a pre-existing usage (note the tense of *adepta*). Some existing usages of unnecessary metaphor, then, are permissible for Lucretius in philosophical discourse.

This use of the name 'mother' to refer to the earth originates in the Greek poetic tradition.⁵⁹ In particular, Lucretius' use of it in *DRN* stems from the allegorical motif of the *hieros gamos*—the sacred marriage between earth and sky—famously represented by Euripides in *Chrysippus* fr. 839 (the primary intertext behind 2.991–1001), whose long history of citation and imitation in Greek and Latin philosophical literature is well known.⁶⁰ The closeness of Lucretius' adaptation at 2.991–1001 makes it clear that he had access to the original Greek text of Euripides' fragment; he also had access to Pacuvius' version: compare *DRN* 5.318–23 to Pacuvius *trag.* 86–7 R³ (= fr. 79.1–2 Schierl) and *trag.* 90–2 R³ (= fr. 80 Schierl).⁶¹ It is possible that Epicurus himself quoted the Euripidean text: Aëtius, at pseudo-Plutarch, *Epit.* 908d, reporting the Epicurean theory of the generation of animals, appends a quotation of lines 12–14 of Fr. 839 (attributed by Aëtius to Anagaxoras and Euripides). This, coupled with the imitation of that fragment at *DRN* 2.991–1001, led Bignone (1920, 261–3) to suggest that Lucretius encountered the *Chrysippus* fragment in a text of Epicurus himself.

That Lucretius' attitude toward the permissibility of unnecessary metaphor was affected by the question of what was already established usage is further demonstrated by a passage from earlier in Book 2:⁶²

⁵⁹ Starting with Hesiod, *Op.* 563.

⁶⁰ For ancient citations and adaptations of the fragment, see Kannicht 2004, 880–1. The bibliography on Lucretius' imitation of Euripides at 2.991–1001 is very large. The most significant items include Bignone 1920, 261–2; Kranz 1929; Boyancé 1941; Alfonsi 1968; Clay 1983, 234–50; Schiesaro 1990, 102–22; Fowler 2000, 141–8.

⁶¹ On which, see esp. Taylor 2016b, 150–4.

⁶² On which, see esp. Gale 1994, 30–1.

hic siquis mare Neptunum Cereremque vocare 655
 constituet fruges et Bacchi nomine abuti
 mavolt quam laticis proprium proferre vocamen,
 concedamus ut hic terrarum dictitet orbem
 esse deum matrem, dum vera re tamen ipse
 religione animum turpi contingere parcat. 660

Here, if anyone decides to call the sea 'Neptune', corn 'Ceres', and prefers to misapply the name 'Bacchus' rather than using the liquid's proper designation, let us concede that he may call this world 'mother of the gods', provided that by means of the truth⁶³ he does not contaminate his mind with foul superstition.

As in the discussions of 'mother earth' at 2.991–8, 5.795–6, and 5.821–5, Lucretius here is concerned with the circumstances under which it is appropriate to call something by a name other than its *proprium vocamen* (657). At 655–7 Lucretius describes a common form of metonymy whereby an entity traditionally associated with a god takes on the name of that god.⁶⁴ Given that the contiguity between god and entity that warrants the metonymy is rooted in the false doctrines of traditional religion, we might have expected Lucretius to reject the use of such expressions. In fact, he does not, and while he does not here express any explicit opinion on the wisdom of using such expressions, his own metonymic use of 'Bacchus' at 3.221 (*Bacchi cum flos evanuit*), and of 'Neptunus' at 2.472 (*Neptuni corpus acerbum*) indicates that he considered them permissible, if not perhaps ideal.⁶⁵ The likely reason for Lucretius' permissiveness (as suggested by the reference to the anonymous *quis* at 655) is that such metonymy was considered a sufficiently ordinary form of expression as to be allowable.⁶⁶ If we are happy to use this sort of

⁶³ See Schrijvers 1970, 58; Gale 1994, 31.

⁶⁴ The verb *abuti* at 2.656 provides further evidence of Lucretian familiarity with contemporary rhetorical terminology (see Gale 1994, 30 n. 109; Clay 1996, 781–2; Marković 2008, 94). Note that for Lucretius, unlike for Quintilian (*Inst.* 8.6.34), *abusio* is not equivalent to my 'necessary metaphor', but is used in a more general (and more pejorative) sense, meaning to apply a name imperfectly or incorrectly, with which usages we may compare *Auct. ad Her.* 4.45; *Cic. Fat.* 24. For *καταχράσασθαι* used in this sense, see Phld. *Rh.* 2, col. 30.19–35 Longo Auricchio. Shearin (2015, 175–7) connects this rhetorical meaning of *abuti* to the appearance of that verb at *DRN* 5.1033, from Lucretius' account of the origins of language.

⁶⁵ See Clay 1983, 47.

⁶⁶ For the proverbial status of such metonymies, see, e.g., Ter. *Eun.* 732 (*sine Cerere et Libero friget Venus*) with Barsby 1999 ad loc.; Otto 1890, 366. For a comparable

metonymy, says Lucretius, we should allow the earth to be called 'mother of the gods' (as she is at 2.598). The reasoning is clear: if it is acceptable to call corn 'Ceres' and wine 'Bacchus', then we may allow the earth, which produces corn and wine, to be called the 'mother of the gods'. It is important here to note the difference between this passage and the previously quoted passages approving the use of the name 'mother' for the earth. The phrase 'mother of the gods' includes both a metaphor ('mother' used of the earth) and a metonymy ('the gods' used of earthly entities traditionally thought to enjoy connections with certain gods). The argument of 2.655–60 makes it quite clear that the issue in question here is not the metaphorical part of the phrase ('mother', which Lucretius elsewhere presents as unambiguously acceptable) but rather the accompanying metonymy ('of the gods').⁶⁷

Recognizing that Lucretius' linguistic concession at 2.658–60 primarily concerns the metonymy 'gods' used of parts and products of the earth allows us to explain why Lucretius' permissiveness towards these expressions is so much more equivocal than his unambiguously positive attitude towards the appropriateness of the phrase 'mother earth', as expressed at 2.998, 5.795–6, and 5.825–6. In the case of 'mother earth', we saw that the title is deemed appropriate because two of the earth's historical characteristics (generation and nurturing) are shared by actual mothers. There is sufficient similarity between earth and mother to subordinate the conception of earth to the term 'mother'. In the case of 'mother of the gods' there is no comparable connection between the primary referents of 'gods' and such earthly entities as corn, sea, and wine. The supposed contiguity warranting these metonyms (and, by extension, the metonymy of 'gods' in the phrase 'mother of the gods') is rooted not in the truth about the gods but rather in popular superstition. The real gods, according to Epicurus, have no interest or contact with life on earth; they are also immortal, and so lack parents. Unlike calling the earth 'mother', therefore—which name conveys helpful truths about the earth's

concession to ordinary expressions featuring the names of gods in Epicurus, compare his rhetorical use of the interjections *μὰ Δία* and *νῆ Δία* (Usener 1977, 312).

⁶⁷ My reading here differs slightly from those of, e.g., Schrijvers (1978, 94), Campbell (2003, 60, 87), and Marković (2008, 94), all of whom closely align this passage with the previously quoted passages concerning 'mother earth'.

historical role—calling it ‘mother of the gods’ can express no truths at all about either the earth or its contents.

What is more, the phrase ‘mother of the gods’, used of the earth, may actually cause false beliefs to be generated in unwary language users, flying, as it does, in the face of Epicurean theology, and encouraging, as it may, more traditional attitudes towards the gods and their place relative to human lives.⁶⁸ Hence Lucretius’ warning at 2.659–60: to use such a phrase of the earth is to risk infecting one’s mind with the contagion of religion. The stakes, then, are very high: the phrase is not only uninformative, but may do real harm to the mental well-being of its users, the false religious beliefs that the use of the phrase may engender prohibiting them from achieving the state of mental tranquillity that, for Epicureans like Lucretius, constitutes the moral end.

At 2.655–60, then, we find a further instance of a limited Lucretian permissiveness towards unnecessary metaphor and metonymy. Lucretius’ attitude in this case is quite different from that which we encountered in the case of ‘mother earth’; whereas there he was unambiguously positive, here his permissiveness is more muted. It is likely that his concession that the phrase ‘mother of the gods’ may be applied to the earth is grounded not so much in the phrase’s ability to communicate truths about the earth or its parts but rather in the mere fact that such metonymies as ‘Ceres’ for corn and ‘Bacchus’ for wine are conventional, and so permissible despite the clear moral risk they carry with them.

2.9. CONCLUSION

The Epicurean attitude towards the permissibility of metaphor in philosophical discourse is not straightforward. Certain metaphors—those which I here term ‘necessary’—are a central feature of novel technical language in both Epicurus and Lucretius. To the contrary, Epicurus’ statements in *Nat.* 28 (taken together with *Ep. Hdt.* 37–8 and the characterization of his style by Diogenes Laertius) suggest an aversion to the novel use of unnecessary metaphor (‘changing the

⁶⁸ Compare Epicurus’ own caution about naming the gods, as expressed at *Ep. Hdt.* 77.

names of things'). Lucretius' discussions of unnecessary metaphors suggest that already established unnecessary usages (especially those capable of revealing the truth about their referents) may likewise (with caution, if necessary) be permitted. These theoretical statements, while informative of linguistic attitudes, reveal little of the extraordinary detail and richness of Lucretius' own metaphorical practice, which will be the subject of the next chapter.

Reading Lucretian Metaphor

Reading through *De Rerum Natura* for the first time requires the continual expansion and revision of one's own linguistic knowledge: as new and difficult doctrines are introduced, new words are forged and old ones repurposed in order to render this new world describable and intelligible; as the world is transformed before the eyes of the reader, the language used to describe it undergoes a necessary and concomitant transformation. This chapter is concerned with one element of the linguistic transformation enacted in *DRN*, namely Lucretius' repurposing of language through metaphor, as well as his adoption, extension, and alteration of existing metaphorical expressions, whether drawn from Epicurus,¹ Empedocles,² or elsewhere in

¹ See Clay 1996; Garani 2007a, 151–220 *passim*; Leone 2014. A few examples: *vestigia* at 1.402 is matched by Epicurus' ἵχνευσις at *Ep. Pyth.* 96 (a rather different argumentative context, but the closeness of the expression is undeniable: see Clay 1996, 788); Lucretius' famous image of the boundaries of the world as *moenia mundi* (ten times in *DRN*) echoes the architectural imagery of the θεμελία ('foundations') of the earth at *Ep. Pyth.* 89 (compare the more neutral ἔδαφος at *Ep. Pyth.* 105 and 106); at 1.986–7 (and there are similar usages elsewhere in *DRN*), Lucretius uses the image of flow to describe (counterfactually) the material contained in a finite universe gathering at the bottom (*iam copia materiai | undique ponderibus solidis confluet ad imum*), while Epicurus (again at *Ep. Pyth.* 89, an important paragraph for Epicurean cosmic metaphor) used ἐπάρδευσις 'watering' to describe the influx of material from other worlds or interworlds that goes to create a world (on Lucretius' debt to Epicurus and Empedocles as sources for this and other flow imagery, see Garani 2007a, 198–209); it is likely that Lucretius' use of *obvius* (a term primarily associated with meetings between individual human beings) to describe both meetings between atoms (2.86) and various encounters between *simulacra* and ourselves/each other (4.33 ~ 1.132, 4.309, 727) is influenced by Epicurus' use of forms of the (likewise personal) ἀπαντάω/ἀπάντησις in the phrase 'meet with no resistance', used of atoms at *Ep. Hdt.* 61 and of εἶδωλα at *Ep. Hdt.* 46.

² The importance of Empedocles as a source for Lucretian metaphor has been comprehensively demonstrated by Garani 2007a, 151–220.

the tradition.³ Among my primary aims will be to demonstrate the instability of Lucretian metaphor, to consider Lucretius' responses to that instability, and to discuss the effects of such instability on readerly experience.

3.1. UNSTABLE METAPHOR

Imagine that one is reading the following passage for the first time.

denique iam quoniam generatim reddita finis
 crescendi rebus constat vitamque tenendi, 1.585
 et quid quaeque queant per foedera naturai,
 quid porro nequeant, sancitum quandoquidem extat,
 nec commutatur quicquam, quin omnia constant
 usque adeo, variae volucres ut in ordine cunctae
 ostendant maculas generalis corpore inesse, 590
 inmutabilis materiae quoque corpus habere
 debent nimirum.

Next, since a limit has been set for things, according to their kind, of growing and of possessing life, and since it has been ordained what each thing can do, according to the *foedera naturai*, and, moreover, what each thing cannot do, nor is anything changed, but all things remain settled such that the diverse birds

³ Some Lucretian metaphors may have more than one source: both Aristotle (*Meteorol.* 357a 25 = B55 DK) and Aëtius (3.16.3 = A66 DK), for example, report that Empedocles referred to the sea as the sweat of the earth (ἡ ἰδρώς τῆς γῆς). As has been often noticed, we find the same expression twice in Lucretius, once (2.465), referring to the combination of liquidity and bitterness in seawater, and once (5.487) referring to the process whereby seawater was squeezed out of the earth during its creation. Empedoclean influence, in the latter passage at least, is undeniable: the theory that seawater was brought out of the earth under pressure from the sun is present in the Aëtius *testimonium* (A66; see also B56). Seneca, however, gives evidence for a use of Latin *sudor* in the technical language of the *aquileges* (water diviners) for water that is drawn out from the earth by heat: *sudorem aquileges vocant, quia guttae quaedam vel pressura loci eliduntur vel aestu evocantur* ('water-finders call it sweat because drops are either squeezed out by the pressure of the ground or brought forth by heat', *NQ* 3.15.7; doubtless this technical usage also explains the metaphor's presence at Vitruvius 8.1.2, 8.1.4). The history of the metaphor of *sudor* for water squeezed from the earth, then, is not simple: Lucretius adopts an expression directly from the language of Empedocles which, when translated into Latin, coincides with a comparable usage in the technical language of the *aquilex*. We will encounter this pattern again in Chapter 6: the enrichment and complexification of Lucretius' use of Greek sources under the influence of existing Latin modes of expression.

show all in succession that the marks of their species are on their body, they [i.e. atoms] must also, beyond doubt, have a body of immutable substance.

Like many Lucretian arguments, this passage asks us to draw on something familiar in order to understand something new. What is familiar, in this case, is the existence of fixed and immutable animal species, each of which possesses distinct powers and distinct limitations on growth and lifespan. Lucretius demonstrates the extent of this phenomenon of natural immutability with reference to the manifold species of birds, each of which possesses a particular observable physical appearance. This feature of the natural world, it is assumed, will be familiar to us. What is new, in this case, is the immutability of invisible atoms that may, Lucretius claims, be inferred from this observable immutability of animal species. Recourse to familiar phenomena, then, helps to demonstrate and illuminate unfamiliar truths. This dynamic is, of course, central to much Lucretian explanation.

This meeting of old and new on the argumentative level is matched on the level of language: line 586 features the first instance in the poem of the phrase *foedera naturai* ‘the treaties of nature’, a locution which would likely have been quite new to first-time readers.⁴ Ordinarily, nature is not the kind of thing that has or is governed by treaties: treaties govern social relations, not natural ones. We have here, then, the use of a familiar term—*foedera*—in a new and unfamiliar sense. The work of interpretation in such cases as this can be fraught and complex. In this case it will, minimally, include both drawing on prior knowledge of the meaning of *foedus* and establishing enough about its context in this passage to make sense of this unfamiliar usage. It may also involve drawing on additional sources of textual and linguistic knowledge, both inter- and intratextual: for example, previous knowledge of the phrase *lex naturae*⁵ may help the reader process this

⁴ The same phrase is encountered at Cic. *Scaur.* 5, which was delivered in July–September 54 BC (see Alexander 1990, 143–4): *qui tamen ipsi mortem ita laudant ut fugere vitam vetent atque id contra foedus fieri dicant legemque naturae* ‘who, though they praise death themselves, nevertheless forbid suicide, and say that it is contrary to the treaty and law of nature’. Six months earlier, in February of 54, Cicero had been reading *Lucreti poemata* (QFr. 2.10.3), which probably explains his use here of the Lucretian phrase (Courtney 1961, 156 n.5); for an alternative interpretation, see Shearin 2015, 89–90. For *foedera naturai* in general, see esp. the important treatments of Garani 2007a, 57–61, 176–8; Asmis 2008; Shearin 2015, 82–97.

⁵ A phrase which certainly predates Lucretius: see, for example, Cic. *Harusp. Resp.* 32 (delivered in 56 BC): *quamquam hoc si minus civili iure perscriptum est, lege tamen*

new usage of the semantically related term *foedus*; likewise, familiarity with Lucretius' tendency earlier in Book 1 to draw metaphors from the domain of human personal and social interaction may render this particular usage less surprising, and less difficult.

Relative to comparable tropes such as analogy and simile, metaphor often involves minimal explicit interpretative instruction. Here, for example, Lucretius does not tell us in what exact way the powers of species may be said to be limited by treaties of nature; instead, that inference is left for the reader to make. So, reaching back to our knowledge of the ordinary scope of the term '*foedus*', and recognizing the importance of the concept of limitation to the argument at hand, we may choose to focus on the fact that *foedera* often set out agreed bounds of behaviour between parties, and so interpret *foedera naturai* as a purely figurative way of expressing the idea of natural limitation, in alignment with Lucretius' other figurative uses of social terminology for natural phenomena and processes earlier in the book. This would be a conservative interpretation, going only so far as to make sense of the expression in the light of the immediate context and the most salient features of ordinary usage. It also avoids making any further inferences that may be inconsistent with Lucretius' broader vision.

Given the lack of explicit instruction, however—the lack of clear limits set upon the act of interpretation—we may consider ourselves free to go further. Reaching back again to our knowledge of *foedera*, we may realize that they are much more than encoded limitations on behaviour: they are voluntary agreements forged between intelligent parties (usually states); they may be the result of negotiation; they rely on mutual goodwill and satisfaction between parties to ensure that they are not broken (and it is possible for them to be broken); they may be sanctified by sacred rites.⁶ It is an easy step from an appreciation of these further resonances of *foedus* to a teleological interpretation of Lucretian *foedera naturai* as the results of deliberate design; of negotiation, perhaps, between different powers (gods, even);⁷ as features of the world which, depending on the intentions

naturae...sanctum est 'although this is not written in the civil law code, it is nonetheless ordained by the law of nature'.

⁶ For the ritual aspects of *foedera*, see Shearin 2015, 82–8; Gladhill 2016, 17–68; and for the ritual and religious aspects of *foedera* in *DRN*, see Shearin 2015, 82–97; Gladhill 2016, 69–96.

⁷ For later reinterpretations of Lucretian *foedera* along just these lines, see pp. 109–11.

of the framers, could have been otherwise, and which might yet be changed, broken, or replaced. Reading down to the next line, we may consider our interpretation strengthened by the phrase *sancitum exstat*, whose religious undertones are hard to miss.⁸

This is an example of what is meant in this chapter by unstable metaphor: we have two quite different readings of the same metaphorical phrase (and there will, of course, be many other possible readings); one is more conservative, the other less so; one is in alignment with Epicurean anti-teleology, the other is at odds with it, but both may be seen as plausible readerly responses to the metaphor *foedera naturai* as it is used here. With the creative use of metaphor, then, there comes a concomitant risk of misunderstanding on the part of the student.⁹ Lucretius, as will be seen, draws on a range of strategies to seek to diminish that risk, via both implicit and explicit authorial interventions. I begin my discussion with two case studies of metaphorical schemes in Lucretius (Sections 3.2 and 3.3), before moving on to the nature, functions, and risks of Lucretian personification (Section 3.4). At the end of the chapter I will turn aside from questions of didaxis—questions that concern the text-internal relationship of teacher and student—to focus instead on broader issues concerning Lucretius' place in the history of Latin poetic and philosophical language. This will provide an opportunity to move beyond analysis in terms of didactic risk, and to think instead about the boldness of Lucretian metaphor as a contribution to a nascent tradition of philosophical poetry, Epicurean and otherwise.

3.2. CASE STUDY: PHILOSOPHY AS CONQUEST

Twice in Book 2 we find the phrase *animi iniectus* employed as a metaphor for imaginative thought:¹⁰

⁸ Gladhill 2016, 80, 88–9.

⁹ Well summarized by Martindale (2005, 188): 'Of course there are risks to Lucretius' strategy of naturalization and use of heuristic fictions, here [1.54–61] and throughout the poem. The anthropomorphisms can work to undermine a system in which man is decentred and there is no ultimate agency or purpose.' See also Clay 1996, 783–4, 786.

¹⁰ See also 2.1080–1: *in primis animalibus inice mentem: | invenies sic montivagum genus esse ferarum* (inice mentem *Lipsius* : indice mente *codd.*) 'First, cast your mind to the animals: you will find that the mountain-wandering race of wild beasts is like this.'

in quae corpora si nullus tibi forte videtur
 posse animi iniectus fieri, procul avius erras. 2.740
 nam cum caecigeni, solis qui lumina numquam
 dispexere, tamen cognoscant corpora tactu
 ex ineunte aevo nullo coniuncta colore,
 scire licet nostrae quoque menti corpora posse
 vorti in notitiam nullo circumlita fuco. 745

If you happen to think there can be no *animi iniectus* into these bodies, you wander far from the true path. For since those born blind, who have never looked upon the light of the sun, nevertheless recognize bodies by touch—bodies which have been colourless to them from birth—we may be sure that bodies not painted with any colour may become concepts for our mind too.

desine quapropter novitate exterritus ipsa 2.1040
 expuere ex animo rationem, sed magis acri
 iudicio perpende, et si tibi vera videntur,
 dede manus, aut, si falsum est, accingere contra.
 quaerit enim rationem animus, cum summa loci sit
 infinita foris haec extra moenia mundi, 1045
 quid sit ibi porro, quo prospicere usque uelit mens
 atque animi iniectus¹¹ liber quo peruolet ipse.

Stop, then, spewing out reason from your mind, terrified by mere novelty; rather, weigh things with keen judgement, and if they seem true to you, surrender; if false, gird yourself to fight. For, since the sum total of space beyond these walls of the world is infinite, the intellect seeks to understand what there is out there which the mind continuously desires to observe, and to where the *animi iniectus* itself flies free.

Both passages concern contemplation of the unseen, in the first instance of the colourless nature of atoms, and in the second of the distant reaches of the universe. *Animi iniectus*¹² has long been recognized as a Lucretian calque of the Epicurean phrase ἐπιβολή τῆς διανοίας ('casting of the mind'). The term ἐπιβολή is used in more than one way by Epicurus (see Long and Sedley 1987, 1.90). Sometimes bare ἐπιβολή refers in a non-technical sense to a theoretical conception gained as a result of philosophical inquiry and contemplation (a meaning also found regularly in Sextus); see, for example, *Ep. Hdt.* 35 (three times) and *Ep. Hdt.* 83. The technical phrase ἐπιβολή τῆς διανοίας, which is often but not always modified

¹¹ iniectus Marullus : iactus Gronovius ('sive malis . . . iniectus') : tactus codd.

¹² Or, alternatively, *iactus* at 2.1047.

by *φανταστική*, refers to something more specific, namely the quasi-perceptual process whereby the mind is stimulated by fine *simulacra* which bypass the senses.¹³ This latter process, which drives certain forms of imaginative thought, was used by Epicureans after Epicurus as a criterion of truth (Diog. Laert. 10.31); the general philosophical conceptions (*ἐπιβολαί*) of *Ep. Hdt.* 35 and 83 could hardly be used in this way.

Here we may note a significant gap between the technical meaning of *ἐπιβολή τῆς διανοίας*, which refers to a quasi-perceptual process, and Lucretius' use of *animi iniectus*, which does not. In the latter case, we are dealing, instead, with theoretical modes of contemplation, whose objects are not the perceptible things on which empirical observations and beliefs can be based, but are imperceptible atoms (2.739–40) or the farthest reaches of the universe (2.1044–7).¹⁴ While such forms of contemplation may rely on the mind's image-forming abilities in order to generate analogies or comparisons (for instance, the analogy of the *caecigeni* invoked at 2.741),¹⁵ they are not themselves perceptual, nor could they serve as criteria of truth. As such, *animi iniectus*, despite its status as a calque, is used by Lucretius to refer to a process which is quite different from the Epicurean *ἐπιβολή τῆς διανοίας*.¹⁶ The metaphor of *animi iniectus* is used by Lucretius

¹³ For the *ἐπιβολή τῆς διανοίας*, see KD 24 (with *φανταστική*), where it is distinguished, along with perceptions and feelings, from opinions awaiting confirmation; it plays the same role at *Ep. Hdt.* 38 (without *φανταστική*), 51 (without *φανταστική*), 62 (with *φανταστική*; on this passage, see esp. Sedley 1973, 24–5). In each of these passages it is quite clear that the process in question is not theoretical but rather perceptual, or quasi-perceptual. This connection with perception is reflected in the semantics of *ἐπιβλητικός*, a term used in *Nat.* 28 to refer to 'empirical' or 'objective' varieties of thought: see esp. fr. 13.6.1 inf.; 7.6 sup.; 8.3 sup.; 8.4 inf.; 11.7, 11, 18 sup. Sedley, with Sedley 1973, 23–5, esp. 24. On the doctrine, see further Long 1971; Asmis 1984, 86–7; Long and Sedley 1987, 1.77–8, 90; Vlastos 1993, 118; Cisar 2001.

¹⁴ For the 'flight of the mind' of Epicurus here and its relation to Epicurean (and Platonic) theology and psychology, see Furley 1989, 180; Erler 2002, 176–7.

¹⁵ I am indebted for this point to David Sedley, who discussed this question with me at length and kindly shared his (quite different) forthcoming account of the Lucretian *animi iniectus* (Sedley forthcoming).

¹⁶ A similar usage is found in Cicero (*N.D.* 1.54: *in quam se iniciens animus et intendens ita late longeque peregrinatur* 'the mind, casting and extending itself into this [space], wanders so widely and so far'), which demonstrates beyond doubt that Cicero was familiar with the Lucretian mode of expression (the passage describes the contemplation of the infinite space of the universe, mirroring the use of *animi iniectus* at *DRN* 2.1047). Bailey, in an Appendix to the commentary on *Ep. Hdt.* in his 1926 edition and translation (reprinted in Bailey 1928 as Appendix III), follows Giussani in using the existence of this Lucretian calque to support the mistaken view that

to colour not the domain of visual or mental perception (as we might have expected, given the meaning of ἐπιβολή τῆς διανοίας in Epicurus), but rather that of the discovery, illumination, and explanation of the unseen.

Latin *inicio* (like Greek ἐπιβάλλω) has a range of established meanings outside the language of philosophy, and the further instances of metaphorical language at 2.1040–7 give us an indication of how Lucretius wants us to understand the phrase *animi iniectus: et si tibi vera videntur*, | *dede manus, aut, si falsum est, accingere contra* ('and if they seem true to you, surrender; if false, gird yourself to fight'). This is just one example of a pattern of characterization in Lucretius wherein the reader's philosophical progress is presented in military terms: either admit defeat, or (like Epicurus) resist.¹⁷ *Inicio* with military meaning ('attack', 'assault', 'throw' [oneself or one's weapons]) is found in texts including Plautus, Ennius, Caesar, Cicero, Livy, and Virgil,¹⁸ and its juxtaposition at 2.1047 with the military terms of 1043 and 1045 invites us to read it in just these terms, as a military metaphor for the philosophical mind marching into and exerting control over the far reaches of the universe. In the case of *animi iniectus*, then, we find Lucretius closely translating an Epicurean technical term while (a) extending the meaning of that term beyond the

Epicurus' phrase ἐπιβολή τῆς διανοίας can be used not only of the mental perception of perceptible objects but also of 'the mental examination of a scientific concept' (1926, 274 = 1928, 576).

¹⁷ So, at 1.102–3 the future Memmius is *vatum* | *terri loquis victus dictis* ('conquered by the terrifying words of priests'), and the spirit of resistance to religious fear which is granted by reason is expressed in similar terms: *religionibus atque minis obsistere vatum* ('to resist the superstitions and threats of the priests', 1.109); *nunc ratio nulla est restandi* ('now there is no way of resisting', 1.110); see also 6.32, where we read, regarding the evils of human life, that Epicurus has taught us *quibus e portis occurri cuique deceret*. For *vincere* used elsewhere of argumentation in Lucretius (often pitting Lucretius against the reader), see 2.748 *quod quoniam vinco fieri, nunc esse docebo* ('since I prove triumphantly that this is so, now I will teach'); 5.99 *et quam difficile id mihi sit pervincere dictis* ('and how difficult it is for me to conquer [i.e. prove] that with words'—a metaphorical usage of *pervincere* that appears for the first time in Lucretius); 6.498 *primum iam semina aquai* | *multa simul vincam consurgere nubibus ipsis* | *omnibus ex rebus* ('first I will prove triumphantly that many seeds of water rise up simultaneously with the cloud themselves'), etc.; for *obsistere*, see also 1.67. Facts themselves have the power to engage thinkers in quasi-military activity: *neque id manifesta refutant* | *nec contra pugnant* ('clear facts neither refute that, not fight against it', 2.867–8). See also Marković 2008, 6.

¹⁸ *TLL* 7.1612.65–1613.3.

narrow technical domain it occupies in Epicurus and (b) exploiting the metaphorical potential of the Latin term which he adopts.

Military language, of course, would not be alien to the ordinary life and cultural experience of Roman readers. We may be tempted, then, to identify here a strategy of familiarization: asking the reader to undertake the novel and unfamiliar mission of coming to see the world in Epicurean terms risks their estrangement from the didactic project; yet, by casting that mission in terms drawn from the familiar world of military activity—terms that may be expected to appeal to the reader's own sense of propriety, nationality, and masculinity: it is good to conquer, and bad to be vanquished—Lucretius frames that novel and potentially alienating process as something both familiar and desirable. Such a strategy also serves to integrate the poem more closely with the familiar national poetry of Ennius' *Annales*, much of whose subject matter concerned military affairs.

This interpretation is, I think, only partially correct. There is a challenge and a difficulty, as well as a familiarity, to Lucretius militarization of the Epicurean project. To understand the nature of this challenge, we may look to the most famous and explicit passage of militarization in the poem: the march of Epicurus, reconceived as a conquering general, beyond the flaming walls of the world:

primum Graius homo mortalis tendere contra
 est oculos ausus primusque obsistere contra,
 quem neque fama deum nec fulmina nec minitanti
 murmure compressit caelum, sed eo magis acrem
 inritat animi virtutem effringere ut arta 1.70
 naturae primus portarum claustra cupiret.
 ergo vivida vis animi pervicit et extra
 processit longe flammantia moenia mundi
 atque omne immensum peragravit mente animoque.
 unde refert nobis victor quid possit oriri, 75
 quid nequeat, finita potestas denique cuique
 quam sit ratione atque alte terminus haerens.

A Greek man first dared to raise up mortal eyes against [religion], and first dared to resist; one whom neither the tales of the gods, nor thunderbolts, nor the threatening murmur of the sky held back, but all the more provoked the fierce virtue of his mind that he should be first to desire to break open the close-set bolts of the gates of nature. Therefore, the vigorous force of his mind conquered, and he proceeded far beyond the flaming walls of the world and traversed all immeasurable space in mind and

spirit. Whence as victor he brings back to us knowledge of what can arise, and what cannot, and in what way is fixed for each thing a limit to its power, and a deep-set boundary stone.

Line 74 attributes to Epicurus the original *animi iniectus*—the imaginative casting of the mind into the farthest reaches of the universe which enabled him to learn the truths of nature (see also *vivida vis animi pervicit* at 72),¹⁹ and we note in this connection the close correspondence between line 73 of this passage and lines 1044–5 of Book 2 (*cum summa loci sit | infinita foris haec extra moenia mundi*, lines which are followed almost immediately by *animi iniectus* at 1047). Importing the language of military struggle and victory enables Lucretius to enrich his metaphorical representation of Epicurus via intertextual engagement with a canonical Roman text: Ennius' *Annales*.²⁰ The presence of Ennius is signalled at 1.66 with *Graius homo*, echoing Ennius' famous description of Pyrrhus of Epirus in *Annales* 6: *navis repertus homo, Graio patre, Graius homo, rex* ('a diligent man was found, a Greek man with a Greek father, a king', 165 Sk.).²¹ The Ennian tone of the passage is reinforced by 70–1—*effringere ut arta | naturae primus portarum claustra cupiret*—which Harrison has identified as an echo of lines from *Annales* 7,²² describing the opening of the *portae Belli* at the start of the First Punic War: *postquam Discordia taetra | Belli ferratos postes portasque refregit* ('after foul Discord broke open the gates and iron-bound doorposts of War', 225–6 Sk.).

Ennius' description of the Roman war against Pyrrhus was located in *Annales* 6, an additional allusion to which can be detected at the opening of *DRN* 5, where the account of Epicurus' own discoveries (*quis potis est dignum pollenti pectore carmen | condere pro rerum maiestate hisque repertis?* 'who is able with powerful mind to found a poem worthy of the majesty of nature and these discoveries?') clearly echoes *Annales* 164 Sk. (probably the opening line of Book 6): *quis potis ingentis oras evolvere belli* ('who is able to unroll the mighty boundaries

¹⁹ For the etymology *vivida vis*, see Festus 516.23–4 Lindsay *vivatus et vividus a potis dicuntur a vi magna*, with Friedländer 1941, 27.

²⁰ On Lucretius and Ennius, see esp. Goldberg 2005, 28–38.

²¹ For Lucretius' rhythmical *imitatio* of this line via archaic long final syllable in *homō*, see Harrison 2002, 9 (with Skutsch 1985 ad loc.).

²² Harrison 2002, 9. For the contribution made to this Ennian colouring by the archaic morphology of *cupiret* at *DRN* 1.71, see Taylor forthcoming b.

of war').²³ By referring to the opening of the book of Ennius which introduced the character of Pyrrhus at the beginning of his own panegyric of Epicurus in Book 5, Lucretius provides an additional hint at a conceptual connection between the two men. It is this correspondence that may complicate the 'familiarizing' reading of Lucretius' military metaphors for philosophical inquiry and contemplation.

One way of reading the allusion at 1.66, adopted by Harrison and Nethercut, is to understand Lucretius' *Graius homo* as replacing or superseding the underlying Ennian model: with this newly militarized Epicurus, Lucretius, suggests Harrison, writes 'a new Epicurean version of Roman history', which replaces the great risk brought to the Roman republic by Pyrrhus with the 'paradoxical' enlightenment heralded by the arrival of Epicureanism in Italy.²⁴ Nethercut seeks to show how Lucretius' recasting of Ennius' Pyrrhus as Epicurus enables the importance of the latter to supersede that of the former, setting up 'Epicurean natural historiography as an alternative to Ennian epic historiography'.²⁵ I would question, however, the power of Lucretius' reformulation to obscure or supersede the underlying Ennian original, and ask just how effectively the anticipation of future Epicurean enlightenment would neuter the deep unease and mistrust that would surely arise in the Roman reader in response to the drawing of a connection between Pyrrhus and Epicurus. Pyrrhus was a notable enemy of Rome, known as much for his ferocity as for his sacrilegious tendencies, while Epicurus already had a reputation for irreligion (see *DRN* 1.80–2 *illud in his rebus vereor, ne forte rearis | impia te rationis inire elementa viamque | indugredi sceleris* 'I have a fear in these matters that you should happen to think that you are entering into unholy principles of reasoning, and starting down a path of sin').²⁶ Given the close parallels set up by Lucretius between the anticipated achievements of the reader and the proven achievements of Epicurus,²⁷ a reader

²³ For further similarities between the proem to *DRN* 5 and the praise of Epicurus victor at 1.62–79, see Buchheit 1971, 305 (= 2007, 107).

²⁴ For echoes of Alexander the Great in Lucretius' treatment of Epicurus, see Buchheit 1971 (= 2007). For ancient parallels between Alexander and Pyrrhus, see Plutarch, *Pyrrhus* 8.

²⁵ Nethercut 2014, 453.

²⁶ For Pyrrhic impiety, see esp. Virgil's characterization of Achilles' son 'Pyrrhus' in *Aeneid* 2.524–58, with Quint 2010, esp. 137–8. The historical Pyrrhus had himself claimed to be descended from Achilles: Plutarch, *Pyrrhus*. 1; 7.

²⁷ Both Epicurus and the reader are envisaged as enjoying a 'flight of the mind' (the reader via *animi iniectus*); Epicurus' resistance (*obsistere* 67) anticipates that required

who responds with unease to *Graius homo* and the Pyrrhic nature of Lucretius' Epicurus, will face a challenge: to align oneself with Epicurus is to risk estrangement or alienation from an element of one's own Roman identity. What is more, the assimilation of Epicurus to *Discordia* at 70–1 (*effringere ut arta | naturae primus portarum claustra cupiret*) constitutes a shocking reversal of Ennian values; Epicurus' portrayal in Ennian terms here actually runs counter to the forces and ideals of Ennian epic.²⁸ There is more to Lucretian military imagery, then, than simple familiarization.

This brief case study has revealed a number of things: a Lucretian tendency (in the case of *animi iniectus*) to appropriate Epicurus' own metaphors into his writing while also allowing for a degree of slippage in meaning; the assimilation of individual metaphors into a broader conceptual scheme (e.g. militarization); the presence, here via intertextuality with Ennius, of uncertainty and instability within a given metaphorical scheme. We will encounter each of these features again before the end of this chapter.

3.3. CASE STUDY: THOUGHT AS PERCEPTION

Of all the sense modalities in which Lucretius expresses an interest, the one with much the greatest significance for metaphor in *DRN* is vision. Throughout the poem we regularly encounter visual perception verbs such as *videre*, *pervidere*, *perspicere*, and *cernere* introducing clauses which express Epicurean beliefs, thoughts, and arguments about the unseen world of atoms and void.²⁹ While this 'cognitive' metaphorical use of perception verbs is, of course, very well established in Latin (as

of the reader (1.109); the journeying metaphor used of Memmius at 1.80–2 serves to align his potential mental activity with that of Epicurus. This is the first of many metaphorical descriptions in *DRN* of Memmius' learning experience as a journey, following in the footsteps of Epicurus the pioneer; see esp. Schrijvers 1970, 18–26, and Gale 1994, 58 for Presocratic comparanda. Memmius' successful philosophical journey can be compared to that of the Heracliteans at 1.655–64 who, in refusing to allow for the existence of pure void in things, *ardua dum metuunt, amittunt vera vias* ('while they fear the heights, they lose the true path'; 1.659).

²⁸ See also Gale 1994, 43–4, discussing the Gigantomachic imagery of the passage: 'the story is inverted and the 'Giant' is victorious'; on gigantomachy here, see further: Gale 1994, 192–3.

²⁹ See Garani 2007a, 231 nn. 99–100.

well as Greek),³⁰ Lucretius' use of such metaphors is sufficiently prevalent, sufficiently original, and (at one important point in Book 2) sufficiently assimilated with the Epicurean theory of perception as to justify close consideration as a case study.³¹ The use of perception verbs to describe non-perceptual experiences like thinking, reasoning, and contemplation blurs, I will argue, a distinction which really matters for Epicureans, who, in their methodology, insist on a strict difference between perception and mere opinion.

For the closeness of the metaphorical links between knowledge and perception we can look to the final lines of Book 1:

haec sic pernosces parva perductus opella;
namque alid ex alio clarescet, nec tibi caeca 1.1115
nox iter eripiet quin ultima naturai
pervideas: ita res accendent lumina rebus.

Thus, you will truly understand these things, led on by a little effort; for each thing will be illuminated by the last, nor will blind night snatch the path from you and stop you seeing the deepest reaches of nature: thus will facts kindle lights for facts.

Careful observation of the world, coupled with sound reasoning, will enable the reader to make inferences about the fundamental truths of the universe.³² This use of *pervideo* for non-perceptual experience is by no means new; indeed, all the earliest occurrences of that word, in Lucretius, Cicero, and Varro, are non-perceptual.³³ Its status as a perceptual metaphor, however, is here reanimated via the imagery of light and darkness present in *clarescet*, *caeca*, *nox*, and *lumina*. This connection between philosophical discovery and metaphorical illumination is familiar in *DRN*, where we regularly find metaphorical

³⁰ David Sedley points out to me in this regard the equivalence between the Lucretian expression *nonne vides* and the Greek *ὄψας*, common in Plato (and elsewhere); see further on this phrase Schiesaro 1984.

³¹ For a literary analysis of such metaphors in Latin poetry, see Catrein 2003, 46–81; for a general analysis of *verba videndi* in *DRN*, see Carozzo 2001; Reinhardt 2015, esp. 72–8.

³² *Ultima* carries both the sense of 'fundamental' (i.e. the fundamental truth that the universe is infinite) and the sense of 'most distant' (i.e. the reader is granted knowledge about extremely distant parts of the universe). For *alid ex alio* as a description of rational inference, see also 1.407–9 and 5.1456–7 (on the pinnacle of early human achievement).

³³ Cic., *Fin.* 5.44; *Off.* 3.75; *Att.* 12.38a.1 (45 BC); see also Plancus at Cic. *Fam.* 10.9.1 (43 BC); Var. *L.* 9.1, 9.4. The purely perceptual sense of this verb is not extant before Livy and Ovid: *TLL* 10.1.1871.24–54.

applications of perception words accompanied by contrasting images of darkness and illumination.³⁴ So, in the programmatic description of his task at 1.143–5 we find Lucretius:

quaerentem dictis quibus et quo carmine demum
 clara tuae possim praepandere lumina menti,
 res quibus occultas penitus convisere possis. 1.145

Seeking with which words and what song I may at last spread clear lights before your mind, by which you may see deeply into hidden things.

As we have seen, here Lucretius alludes to Callimachus' *Epigram* 27, on Aratus.³⁵ The rare perception verb *convisere* is thus particularly well chosen in this context, given its use in Cicero's *Aratea* to refer to the reader's visual contemplation of the heavens.³⁶ *Res occultas* are equivalent to the Epicurean ἄδηλα (cf. 1.424 *occultis de rebus*), also picking up the *Graiorum obscura reperta* of 136.³⁷ and forms of *pando* and its cognates are used several times in *DRN* to describe philosophical illumination, of both Lucretius and Epicurus.³⁸

These metaphors take verbs from the linguistic domain of perceptual experience and apply them to non-perceptual attitudes. Three further examples:

et quo iactari magis omnia materialia
 corpora pervideas. 2.90

And so that you may see more clearly that all bodies of matter are buffeted about.

si tibi forte animum tali ratione tenere
 versibus in nostris possem, dum perspicis omnem
 naturam rerum, qua constet compta figura. 1.950

³⁴ For the importance of light and clarity to Lucretian poetics, see Milanese 1989, 107–50; Gale 1994, 203–4; Fowler 2002, 131–7.

³⁵ See p. 12.

³⁶ Cic. *Arat.* 34.245: *at si nocturno convisens tempore caelum* ('but if, observing the sky at night'); see further, pp. 183–4. For the possibility that *praepandere* (144) was inspired by the same verb at Cic. *Arat.* 34.41, see Bailey 1947, ad loc.

³⁷ Cf. *obscura de re tam lucida pango* | *carmina* ('I compose such clear poetry on obscure matters') at 1.933 and 4.8. 1.136 is repeated, with some modification, at 1.922. With Lucretius' illuminating versification we may compare the paradoxical and ironic *clarus ob obscuram linguam* ('famous on account of his obscure tongue') of Heraclitus at 1.639; see Gale 1994, 47, 139.

³⁸ 1.55, 144 (of Lucretius); 5.54 (of Epicurus); it is used literally (of *Matuta*) at 5.656–7: *per oras* | *aetheris auroram differt et lumina pandit* ('she spreads the dawn through the realms of aether and spreads out her light'). On visual metaphors in Lucretius, see also Catrein 2003, 51–7.

If by chance I might in such a way hold your mind in my verses, while you look upon the whole nature of things, in what shape it is made and formed.³⁹

quas ob res ubi viderimus nil posse creari
de nihilo, tum quod sequimur iam rectius inde
perspiciemus, et unde queat res quaeque creari
et quo quaeque modo fiant opera sine divom.

Because of this, once we have seen that nothing can be created from nothing, then from that we will more rightly perceive that which we are seeking: both whence each thing can be created and in what manner all things come to be without the work of the gods.

Pervideas at 2.90 has as its object an infinitive clause which expresses a claim about the motion of atoms. *Perspicis* at 1.949 has as its object *naturam rerum*, the subject of the whole poem, which is further explained by an indirect question: *qua constet compta figura* (a fundamental feature of the universe). 1.156–8 combines two distinct perception verbs (*viderimus* and *perspiciemus*) in one short passage, with each referring to Lucretius' and the reader's grasp of distinct aspects of Epicurean doctrine. None of these passages describes an actual perceptual experience: neither atoms nor laws of nature are objects that can be perceived. Rather, perceptual metaphor is used to describe the anticipated Epicurean beliefs of the reader as though they were perceptual experience. Now, Epicurean beliefs are, of course, based on perceptual experience: perceptions, for an Epicurean, provide us with the data against which to put our beliefs about the unseen world to the test. Nevertheless, there remains a fundamental conceptual distinction, on the Epicurean model, between perception and belief; to describe the latter in terms of the former, as Lucretius does by engaging so readily in such metaphor, is to risk blurring the distinction between the two.

A programmatic passage of Book 2 pushes this metaphor to its limit:

multaque praeterea magnum per inane vagantur,
conciliis rerum quae sunt reiecta nec usquam 2.110
consociare etiam motus potuere recepta.
cuius, uti memoro, rei simulacrum et imago
ante oculos semper nobis versatur et instat.
contemplator enim, cum solis lumina cumque
inserti fundunt radii per opaca domorum; 115

multa minuta modis multis per inane videbis
 corpora misceri radiorum lumine in ipso
 et velut aeterno certamine proelia pugnas
 edere turmatim certantia nec dare pausam
 conciliis et discidiis exercita crebris. 120
 conicere ut possis ex hoc, primordia rerum
 quale sit in magno iactari semper inani.
 dumtaxat, rerum magnarum parva potest res
 exemplare dare et vestigia notitiae.

Moreover, many [atoms] wander through the great void, which have been rejected from the unions of things, nor have they elsewhere been able to be received and to harmonize their movements. Of which thing, as I recall, a *simulacrum et imago* is always present and passing before our eyes. For observe, whenever rays are let in and pour the light of the sun through the dark places of the house; you will see in the very light of the rays itself many tiny bodies mingling in many ways through the empty space and, as it were, in constant struggle waging battles and fights, struggling in troops, and never stopping, driven on by frequent unions and divisions. So that you may be able to imagine from this what sort of thing it is for the first beginnings of things to be cast about in the great void. To this extent, a small thing may give an exemplar of great things, and reveal the traces of understanding.

Here we have an example of how our everyday (*semper*) experience can provide descriptive analogies for the workings of the unseen world. The source domain⁴⁰ of the analogy—dust motes moving through the air—is described as a *simulacrum et imago* of the nature of atomic motion. This metaphor may be read on more than one level. To a reader working through the poem for the first time, these terms, lacking any specific technical nuance, will characterize the relationship between each side of the analogy as one of mimesis, or pictorial similarity: the movement of dust motes resembles the motion of atoms just as an effigy, image, or statue resembles the person or object depicted.⁴¹ But *DRN* is not a text to be read once and then discarded; this conforms to the reading practice neither of ourselves nor of ancient readers. A reader familiar with Book 4 will be tempted to

⁴⁰ A note on my terminology here: the domain from which the language of the metaphor is drawn is known as the source domain (in the language of similes, the ‘vehicle’), while the domain which the writer is seeking to describe with the metaphor is known as the target domain (in the language of similes, the ‘tenor’).

⁴¹ The first-time reader will already have encountered *simulacrum* twice in non-technical senses: at 1.123, of ghosts, and at 1.1060, of reflections in water.

look back to these terms, which on first reading may have appeared innocent, and ask how, in the light of the technical meanings developed for them later in the poem,⁴² the analogy can be enriched or reinterpreted.⁴³ The degree to which the phrase *simulacra et imago* at 2.112 bears technical connotations, then, cannot be determined with certainty, but will vary from reader to reader, depending in part on their level of familiarity with the later parts of the poem.⁴⁴

What might a reanalysis of the metaphor in the light of the technical meanings of these terms look like? *Cuius rei* at 2.112 refers to the element of the theory of atomic motion just explained at 109–11, i.e. that some atoms move through the void alone, not joined to any other atoms in compound.⁴⁵ Elsewhere in *DRN*, genitives accompanying *simulacrum* and *imago*, when those terms are used in their technical senses, refer to the objects from which those *simulacra/imagines* were originally emitted.⁴⁶ The metaphor *rei simulacrum et imago*, then, may be read as casting the movement of individual dust particles as a *simulacrum*, and the motion through the void of atoms as the object which emitted that *simulacrum*. *Simulacra*, on the Epicurean theory, contain information about the objects from which they are emitted, information without which we would not be able to perceive said objects. The *simulacrum et imago* metaphor, then, on such a reading, suggests that the source domain of an analogy may carry out a similar function (although the ‘sight’ analogies grant us is, of course, only

⁴² Both *simulacrum* and *imago* carry a technical sense in the Lucretian account of visual perception, being used to translate Epicurus’ *εἰδωλα*—the films, one atom thick, which are continually emitted from the surface of objects, which are thus rendered visible. Both terms can carry this technical sense, and there is no clear rule determining Lucretius’ choice at any one time (although he uses *simulacrum* more frequently than he does *imago*).

⁴³ Such a reader may already have noted Lucretius’ tendency to use terms in technical or semi-technical senses before the meaning of said term has been explained in any detail. So *inania* at 1.223 (void explained later at 1.329–97); the variety of terms for atom at 1.54–61 (the nature of atoms explained at 1.483–634).

⁴⁴ I would assent, then, to the judgement of Schiesaro (1990, 27) here to the effect that ‘non è possibile giungere ad una rigorosa delimitazione del significato di ciascun termine’. For the tendency of *DRN* to be open to different interpretations by readers of differing levels of experience, see Taylor forthcoming a.

⁴⁵ Described neatly by Garani (2007a, 53) as ‘a kind of ostracism from the atomic communities’.

⁴⁶ e.g. 4.351, 733, 995 (*simulacra*); 4.101, 741 (*imagines*). An exception is provided by 4.739, where we find reference to a *centauri imago*. The relation of *imago* to *centaur* is not the same relation as *εἰδωλον* to emitting object, since there were never any centaurs from which such an *imago* could be emitted.

metaphorical): an analogical source, such as the movement of dust particles through the air, contains information that helps the reader conceptualize the analogical target (in this, case, the movement of individual atoms through the void). Just as *simulacra* enable us to see the objects from which they are emitted, so too do analogical sources, drawn from everyday life, enable us the better to ‘see’ the hidden truths of the universe (1.1116–17: *ultima naturai | pervideas*).

Like Epicurus, Lucretius faces a major difficulty in attempting to convince readers of the existence of basic components of the universe which cannot be seen, while at the same time espousing an epistemology according to which the only trustworthy source of information about the atomic nature of the universe is our own perceptual experience.⁴⁷ In the metaphors under discussion in this section, Lucretius chooses to use language drawn from the domain of visual perception, bearing as it does, in an Epicurean context, connotations of truth and certainty, to describe the reader’s encounters with and contemplation of the basic truths he is seeking to convey. We may compare a similar dynamic present in his adoption and transformation of Epicurus’ metaphor of the ἐπιβολὴ τῆς διανοίας. The familiarity and clarity of the reader’s everyday perceptual experience, together with the terms which describe the nature and mechanics of that experience, are transferred, as it were, onto the colourless, anodyne, invisible domain of atoms and atomic motion.⁴⁸ In this way, Lucretius harnesses a pre-existing development in the semantics of perception verbs (i.e. their application to experiences that are not strictly or purely perceptual) and turns it to his own particular didactic ends. The didactic risk in such a strategy is that such metaphors blur the line between perception and other forms of thought, a line of no little methodological importance for Epicureans.

3.4. PERSONIFICATION AND PLEASURE

Central to Epicurean physics are two fundamental processes: the combination of atoms into compounds, and the dissolution of those compounds into their constituent parts. Lucretius’ terms for these

⁴⁷ DRN 4.478–521.

⁴⁸ See Wardy 1988.

processes are, respectively, *concilium* and *discidium*, each of which translates equivalent Epicurean terms:

*concilium*⁴⁹ ~ σύγκρισις⁵⁰/ ἄθροισμα
discidium ~ διάλυσις

In addition to its use in Greek philosophical contexts, *διάλυσις* has a range of social and political meanings, being used in texts predating Epicurus for the dismissal of troops (Xenophon), the breaking up of agoras and councils (Herodotus, Plato), and the ending of friendships (Aristotle), alliances (Aristotle), and marriages (Euripides).⁵¹ Latin *discidium*⁵² has a similarly broad range of social and political meanings, some of which overlap with meanings of *διάλυσις*. Socially, it can refer to the ending of friendships (Cicero) and marriages (Terence, Cicero); when used in political contexts, it can express a violent split or disagreement which bears political and military consequences. Usually the split in question is between members of the same group, making it a term particularly apt for describing factional divisions leading to civil strife.⁵³ Lucretius, then, has chosen a Latin translation for *διάλυσις* which carries over into Latin a similar range of sociopolitical connotations as did Epicurus' original Greek term (this is known as a loan shift). While there is no evidence to suggest that Epicurus chose to exploit the political connotations of this aspect of his terminology, the same cannot be said of Lucretius.

As for *concilium*,⁵⁴ while I am aware of no evidence to suggest a political valence for Epicurus' term *σύγκρισις*, his equivalent term

⁴⁹ See Keen 1979, 66–7.

⁵⁰ *σύγκρισις* is used both of the process of compounding and the resultant compounds (for the latter sense, see, e.g., *Ep. Hdt.* 39). Another Epicurean term is *σύγκριμα*, used of compounds formed by the process of *σύγκρισις*; see Usener 1977, 617.

⁵¹ Citations for all except the last may be found in LSJ s.v.; for *διάλυσις* as divorce in Euripides, see fr. 502.6 Kannicht.

⁵² Introduced at 1.219–20 in the context of a *modus tollens* argument that *nil ad nilum: nulla vi foret usus enim quae partibus eius | discidium parere et nexus exsolvere posset* ('for there would be no need of any force to provide dissolution to its parts and unbind its connections'). For the political connotations, see further: Hellegouarc'h 1972, index s.v.

⁵³ So, e.g., Cic. *Sull.* 60 (on civil strife at Pompeii); Cic. *Lig.* 19; Cic. *Har. Resp.* 45. For *discidium* to describe an international disagreement, see Cic. *Balb.* 30.

⁵⁴ Introduced at 1.182–3 in the context of a *modus tollens* argument that *nil ex nihilo: quippe ubi nulla forent primordia quae genitali | concilio possent arceri tempore iniquo* ('when indeed there would be no first beginnings which could be prevented from generative union at an unfavourable time'); see also 1.484, with Fowler 2002, 185; Masson 1907, 126.

ἄθροισμα⁵⁵ is used for a gathering of people at Euripides, *Orestes* 874. Latin *concilium* bears a much wider range of sociopolitical meanings, being used to refer to organized gatherings or meetings both in a general sense (whether civilian or military) and as a technical element of Roman political organization. The relevance of political life and decision-making to the Roman understanding of *concilia* is made clear by its treatment at the hands of etymologists: Varro derives it from *cogitatio*; Festus suggests a derivation *a populi consensu*; Isidore describes it as *nomen tractum a more Romano . . . a communi intentione dictum*.⁵⁶ Whereas it does not appear to have been used to refer to the contract of marriage, it can refer to sexual intercourse, between humans or between animals, a meaning present as early as Plautus.⁵⁷ As opposed to these more familiar sociopolitical meanings of *concilium*, Lucretius appears to have been the first to use it in a technical, natural-philosophical sense.⁵⁸ The translations chosen, then, to render into Latin Epicurus' terms for these two basic principles were preloaded with political and social connotations.

These two crucial pieces of Lucretian vocabulary—close translations of Epicurean terms, as we have seen—stand at the heart of the well-known Lucretian tendency to describe the world of atomic interaction in personifying terms drawn from the domains of social and political life.⁵⁹ Around these terms Lucretius built up a complex conceptual network of political and interpersonal metaphors for atomic motion and interaction. We have already encountered in passing a combination of such terms at 2.118–20, where the motion of dust motes through the air is illustrated with the following analogy:

et vel ut aeterno certamine proelia pugnas
edere turmatim certantia nec dare pausam,
conciliis et discidiis exercita crebris. 120

and, as it were, in constant struggle waging battles and fights, struggling in troops, and never stopping, driven on by frequent unions and divisions.

⁵⁵ *Ep. Hdt.* 62, 63; see Usener 1977, 18–19.

⁵⁶ Varro, *L.* 6.43; Festus 33.26–7 Lindsay (giving as an alternative *a concalando, id est vocando*); Isid. *Orig.* 6.16.12.

⁵⁷ *TLL* 4.45.58–64; Adams 1982, 179. Compare the similar range of meanings held by the Lucretian term *coetus*, on which, see Garani 2007a, 234 n.15.

⁵⁸ Keen 1979, 66.

⁵⁹ See Cabisius 1985; Fowler 1989; Gale 1994, 19–26, 39–45; Garani 2007a, 43–71; 2007b; Schiesaro 2007, 82–90; Asmis 2008; Shearin 2015, 73–82.

Lucretius' tendency to employ the metaphorical language of political affiliation and disaffiliation when describing the atomic world is well known: atoms *consociant*⁶⁰ and *conciliant*; they engage in *concursum* and *congressum*;⁶¹ they experience *pugnae* and *certamina*.⁶² This is itself just one part of the broader Lucretian strategy of the personification of nature, which includes the notions of natural law, boundary, and limitation expressed by such phrases as *foedera naturai* and *fati foedera*, the former of which was described in Section 3.1 at pp. 72–5, the latter of which (2.254) is used for the strictures to which things would be subject if there were no atomic swerve;⁶³ likewise, we find the language of *leges*,⁶⁴ and, of course, the *alte terminus haerens* which refers to the limit set down by the *foedera naturai*.⁶⁵ My intention here is not to describe these metaphors at length, retreading the familiar ground already so well covered by other critics, but rather to consider in particular the ethical and aesthetic significance of this type of personification as regards readerly experience and pleasure. I will do this by focusing on particular examples from Book 2.

Personification and social metaphor in Lucretius has an explanatory purpose, namely the illumination and familiarization of a potentially alienating doctrine—the stating of unusual and exotic truths in terms familiar from both life and literature. Yet such an explanation, though surely correct in part, remains incomplete. While clarity certainly is an important function of Lucretian explanation (thus 1.933–4 = 4.8–9 *obscura de re tam lucida pango | carmina*),⁶⁶ Lucretius' characterization of his own verse as honey on the rim of the cup

⁶⁰ 2.110–11 with Hellegouarc'h 1972, 82–90.

⁶¹ See Garani 2007a, 64–5.

⁶² See Anderson 1960, and p. 95.

⁶³ For a possible Empedoclean background to the metaphor, see Garani 2007a, 57–61; 2007b.

⁶⁴ See 2.718–19, on the limit of varieties of living kinds: *sed ne forte putes animalia sola teneri | legibus hisce* ('but in case you happen to think that animals alone are held by these laws'); 3.687, on the inevitable limit placed on human lifespans by death: *animas nec leti lege solutas* ('nor are spirits free from the law of death'); 5.58, on the inevitability of natural laws: *nec validas valeant aevi rescindere leges* ('nor are they able to rescind the strong laws of time').

⁶⁵ 1.77, 596, 5.90, 6.66. For detailed analysis of the role of natural law in Lucretius, see Asmis 2008 and Long 1977. For a comparable political metaphor in Epicurus' own physics, see Cic. *N.D.* 1.50, where the term *ἰσωνομία* is attributed to him; for the relevance of the same term to Empedocles, see Vlastos 1947, 158–61; Garani 2007a, 67–8.

⁶⁶ See Milanese 1989, 107–50; Gale 1994, 144–5, 202–4; Marković 2008, 87–9, with further bibliography.

of wormwood (*et quasi musaeo dulci contingere melle*, 1.947 = 4.22) also gives a central poetic role to pleasure: these verses will bring not just clarity and light, but also a sensation of sweetness (see also 1.945–6 = 4.20–1 *suaviloquenti carmine*).⁶⁷ Sweetness is also at the heart of Lucretius' most important programmatic statement of Epicurean ethics:

suave, mari magno turbantibus aequora ventis
e terra magnum alterius spectare laborem;
non quia vexari quemquamst iucunda voluptas,
sed quibus ipse malis careas quia cernere suavest;
suave etiam belli certamina magna tueri 2.5
per campos instructa tua sine parte pericli;
sed nihil dulcius est bene quam munita tenere
edita doctrina sapientum templa serena.

It is sweet, when on the great sea the winds disturb the waters, to observe from the land the great toil of another; not because it is a joyful pleasure that anyone should be distressed, but because it is sweet to perceive misfortunes from which you yourself are free; it is also sweet to look upon great struggles of war drawn up across the plains without your part in the danger; but nothing is sweeter than to occupy temples lofty and serene, well-fortified by the teaching of the wise.

This is among the most widely discussed passages of Lucretius, and I do not intend to go into great detail on it here.⁶⁸ The passage is a priamel, with the sublime pleasures of philosophical security capping (*sed nihil dulcius est*) the pleasures of observing others undergo physical trials from which oneself is protected (*quibus ipse malis careas*). While the primary force of the priamel is ethical, there are also aesthetic and literary messages to be discerned: both *suavis* and *dulcis* are terms with aesthetic and literary-critical significance, with *suavis* regularly being used of the sounds of the sung and spoken word,⁶⁹ and *dulcis* of poems themselves;⁷⁰ furthermore, both terms feature in Lucretius' own account of his poetics at 1.943–50 ~ 4.18–25,⁷¹ as does the compound *suaviloquens* (1.945 = 4.20); elsewhere in Lucretius we find *suavidicus* applied to his own verses (4.180, 909; see p. 182).

⁶⁷ On pleasure in Lucretian poetics, see esp. Gale 1994, 148–50.

⁶⁸ The best treatment remains that of Fowler 2002. ⁶⁹ OLD s.v. 3.

⁷⁰ Quint. *Inst.* 12.10.33; Hor. *Ars* 99. ⁷¹ See Roy 2013, 782 n.10.

Sydnor Roy has recently argued⁷² that the first two elements in the priamel—struggle at sea and *belli certamina magna*—correspond to the two Homeric epics of *Odyssey* and *Iliad*, capped in turn by the promise of Lucretius' philosophical poem.⁷³ The delights of Epicureanism, then, as expressed and explored in Lucretius' verse, will supplant two kinds of pleasure in the reader: the psychological pleasures of observing the trials of others while being aware of one's own physical security, and the literary pleasures of reading the texts in which such struggles are canonically depicted, including the two Homeric epics. As these pleasurable visions are supplanted in the proem to Book 2, however, so in turn are they appropriated and repurposed by Lucretius as sources of imagery for his account of the atomic doctrine that occupies the rest of the book. To begin with shipwreck:

quippe etenim hoc tibi si sumas⁷⁴ finita per omne
 corpora iactari unius genitalia rei,
 unde, ubi, qua vi et quo pacto congressa coibunt
 materiae tanto in pelago turbaque aliena? 2.550
 non, ut opinor, habent rationem conciliandi;
 sed quasi naufragiis magnis multisque coortis
 disiectare solet magnum mare transtra cavernas
 antemnas proram malos tonsasque natantis,
 per terrarum omnis oras fluitantia aplustra 555
 ut videantur et indicium mortalibus edant,
 infidi maris insidias virisque dolumque
 ut vitare velint, neve ullo tempore credant,
 subdola cum ridet placidi pellacia ponti,
 sic tibi si finita semel primordia quaedam 560
 constitues, aevom debebunt sparsa per omnem
 disiectare aestus diversi materiai,
 numquam in concilium ut possint compulsa coire
 nec remorari in concilio nec crescere adaucta;

⁷² Roy 2013. For Homeric intertexts in Lucretius, see Gale 1994, 99–128, esp. 106, 111–14, 124–6. Relevant to my argument here is the rejection of Phaeacian luxuries (*Od.* 7.100–2) at *DRN* 2.23–6, on which, see esp. Fowler 2002, 93–5.

⁷³ Note, for example, the epic phrase *mari magno*, connected by Conte (1966, 340) to such Homeric phrases as *εὐρέα νῶτα θαλάσσης, εὐρέα πόντον*; Fowler (2002 ad loc.) adds *πέλαγος μέγα* (*Od.* 3.179, 321). *Certamina belli* is linked by Conte to *νεῖκος πολέμοιο* (*Il.* 13.271).

⁷⁴ hoc tibi si sumas *Deufert* 2018, 102–4 : *sumant oculi codd.*

Indeed, if you should assume this too, that the bodies generative of a single thing are limited in number as they are tossed through the universe, whence, where, by what force and how will they meet and converge in so great a sea and alien crowd of matter? They do not, I think, have a way of combining; but, just as when many great shipwrecks have come to pass, the great sea is accustomed to cast about benches, ribs, yards, prow, masts and swimming oars, so that around all the shores of the land floating stern-fittings are seen and give a warning to mortals, that they should seek to avoid the snares, might, and deceit of the treacherous sea, and that they never trust it at any time when the deceptive allurements of the calm sea smiles; thus, if you once resolve that certain first beginnings are limited in number, then the rending tides of matter ought to hurl them scattered through all time, so that they can never come together driven into union, nor delay in union, nor grow and increase.

The context is an argument for the infinite number of atoms of any one shape. For an atomic compound to be created, even just once, an infinite store of atoms is required, for otherwise atoms would be spread so far out through the infinite universe that they would never be capable of combining. This spreading of atoms through space is described in a Lucretian tour de force via the analogy (552–9) of the pieces of a wrecked ship spread across the waves of the sea, never to be brought back together. The connections with 2.1–2 are clear, starting with the repeated epicism *mari magno* (2.1)/ *magnum mare* (2.553) and including lines 557–9, where the vision (*videantur*) of shipwreck gives a warning to those on land (cf. 2.1–2). The explicit comparison, which begins at 552 with *quasi* and is anticipated by the strange and striking metaphor *materiae tanto in pelago* at 550, neatly captures the chaos and disorder of the wreck via the extended use of asyndeton at 553–4, lines whose infinitive (*disectare* 553) is paralleled by the same form in the same *sedes* at 561,⁷⁵ used there of the buffeting of atoms through the endless void. Shipwreck is a favourite topic of Roman as well as Greek literature;⁷⁶

⁷⁵ See Garani 2007a, 109–10.

⁷⁶ In Latin literature before Lucretius, see especially Leigh 2010. The importance of shipwreck to the life of Epicurus, as explored by Clay 1973, who relies on Plutarch *Non Posse* 1090e and Diogenes of Oinoanda fr. 72 Smith, must now be reassessed in the light of Smith and Hammerstaedt's discovery of New Fragment 214, which identifies the shipwrecked man of fr. 72 as Niceratus, not Epicurus; see Hammerstaedt and Smith 2018, citing and confirming the arguments of Hoffmann 1976 (*non vidi*).

Just as the struggling ship of 2.1–2 returns in metaphorical guise later in the book, so too do the *belli certamina magna*.⁷⁷ We have already discussed the military imagery of 2.118–20: *et velut aeterno certamine proelia pugnās | edere turmatim certantia nec dare pausam, | conciliis et discidiis exercita crebris*. The same imagery returns at 2.569–74:

And so neither can the destructive motions prevail forever and bury life eternally, nor can the generative and augmentative motions of things forever preserve their creations. Thus, the war of first beginnings, carried on from infinite time, is waged in an equal struggle.

I have been arguing here that the rejection of the aesthetic pleasures of observing maritime and military struggles in the proem to Book 2 operates not only on the level of ethics, but also on that of poetics, and that the opening priamel may thus be seen, from one angle, as a kind of

⁷⁸ See Anderson 1960, 18: 'restricted to the soulless atom, this metaphor carries no ethical judgement'; see also Gale 2000, 234–5. Of course, not all military metaphor in Lucretius is ethically neutral: on the disturbing implications of Epicurus as *Gravitas homo*, see Section 3.2 at pp. 79–82.

⁷⁹ Hinting at an etymology for *exercitus*: Varro, *L.* 5.87.

recusatio, rejecting the subject matter of the Homeric poems and embracing instead the sublime pleasures of philosophical poetry. In the later technical arguments of the book, however, this same rejected subject matter returns in metaphorical guise, as the world of the atom is reimagined in both military and nautical terms. In the end, then, the sublime poetic pleasures of shipwreck and war (and we may note here the inclusion of Homeric and other shipwrecks as examples of the sublime at pseudo-Longinus, *De Sublimitate* 10.3–7) are restored to us in transfigured form. This, we may argue, is one aspect of the honey on the rim of the cup of wormwood: the function of Lucretian metaphor not only as an explanatory tool but also as a source for sublimity and readerly delight.

3.5. DIAPHORA: REPETITION AND CONTROL

To read and interpret metaphor is to be confronted with one aspect of the history of the language. In the case of familiar, well-established metaphors, the historical developments in question may lie in the distant past: ‘The chief work of literary men in dealing with language, and of poets especially, lies in feeling back along the ancient lines of advance.’⁸⁰ In the case of novel developments within the text one is reading, linguistic change will occur before one’s eyes, as existing senses of terms are repurposed, extended, and inverted: ‘The poet, in dealing with his own time, must also see to it that language does not petrify on his hands. He must prepare for new advances along the lines of . . . metaphor’.⁸¹ Both have a role to play in the interpretation of *DRN*. In this section, I consider one way in which Lucretius confronted his readers with this diachronic dimension of metaphor, and in so doing sought to control the reception of his own figurative language, so as to minimize the risk of misreading.

Half a century or so after Lucretius wrote *DRN*, the rhetorician Publius Rutilius Lupus made an abbreviated Latin translation of a work by Gorgias, the teacher of Quintus Cicero.⁸² Rutilius (8.14 Halm) renders the definition of the trope of *diaphora* as follows:

⁸⁰ Ernest Fenollosa (Fenollosa and Pound 2008, 54), quoted at Donoghue 2014, 118.

⁸¹ Ezra Pound, commenting on Fenollosa (Fenollosa and Pound 2008, 54).

⁸² Quint, *Inst.* 9.2.102; Cic. *Fam.* 16.21.6.

διαφορά: hoc schema est, cum verbum iteratum aliam sententiam significavit ac significavit primo dictum.

Diaphora: this figure occurs when a repeated word expresses a meaning different from that which it expressed when it was first uttered.

This trope, described elsewhere under different names,⁸³ underlies an important metaphorical strategy in Lucretius' analogies,⁸⁴ wherein we find the juxtaposition of terms used in both primary (i.e. literal or ordinary) and secondary (i.e. metaphorical) senses, with the primary sense being found in the source domain of the analogy and the secondary sense being found in the target domain of the analogy. This process encourages the reader to compare and evaluate two different uses of the same term, establishing similarities and differences in their respective semantic fields. This is one way in which Lucretius seeks to control his readers' reception of his metaphors and analogies.

The by now familiar passage at 2.114–24 provides an initial example:

contemplator enim, cum solis lumina cumque	
inserti fundunt radii per opaca domorum;	115
multa minuta modis multis per inane videbis	
corpora misceri radiorum lumine in ipso	
et velut aeterno certamine proelia pugnas	
edere turmatim certantia nec dare pausam	
conciliis et discidiis exercita crebris,	120
conicere ut possis ex hoc, primordia rerum	
quale sit in magno iactari semper inani.	
dumtaxat, rerum magnarum parva potest res	
exemplare dare et vestigia notitiae.	

For observe, whenever rays are let in and pour the light of the sun through the dark places of the house; you will see in the very light of the rays itself many tiny bodies mingling in many ways through the empty space and, as it were, in constant struggle waging battles and fights, struggling in troops, and never stopping, driven on by frequent unions and divisions, so that you may be able to imagine from this what sort of thing it is for the first beginnings of things to be cast about in the great void. To this extent, a small thing may give an exemplar of great things, and reveal the traces of understanding.

⁸³ See Lausberg 1998, §§660–4 with Frédéric 1985, 43–5 ('la terminologie est extrêmement flottante').

⁸⁴ For Lucretius' tendency to repeat terms on either side of an analogy, see the fundamental treatment of D. West 1969, 64–78 (see also 43–8). For the potential influence of Empedocles here, see the excellent treatment of Garani 2007a, 106–15, invoking the lantern simile (B84 DK) and the water-clock simile (B100 DK).

The source domain of the analogy extends to 120, and the target domain follows at 121–2. The word *inane* is repeated, occurring in both the source and the target domain, at 116 in a conventional, everyday sense (empty space) and at 122 in a technical sense (void).⁸⁵ Here, then, Lucretius enacts a confrontation between the technical, secondary sense of the word and its primary, natural sense, in a context which is designed to help the reader recognize the latent similarities between the referents of each sense. The dust motes themselves are referred to at 117 as *corpora*, the term regularly used (most recently at 104) by Lucretius to refer to atoms. While *corpora*, when used of atoms, is not itself a metaphor,⁸⁶ the juxtaposition of the two different uses of the term at 104 and 117 achieves a similar effect to that of the repetition of *inane* in both domains of the analogy. The following passage (2.125–41) establishes a causal connection between atomic and macroscopic bodies; the juxtaposition of terms via repetition may be said to express and clarify not only an analogical relation, but also a causal link between microscopic and macroscopic domains.⁸⁷

We find in Book 3 the following combined analogy between, on the one hand, the soul as smoke or steam that is dispersed, and, on the other, the body as container (*vas*) of the soul. The latter element of the analogy features *diaphora* of *vas*:

nunc igitur quoniam quassatis undique vasis diffluere umorem et laticem discedere cernis, et nebula ac fumus quoniam discedit in auras, crede animam quoque diffundi multoque perire ocius et citius dissolvi in corpora prima, cum semel ex hominis membris ablata recessit. quippe etenim corpus, quod vas quasi constitit eius, cum cohibere nequit conquassatum ex aliqua re ac rarefactum detracto sanguine venis, aere qui credas posse hanc cohiberier ullo, corpore qui nostro rarus magis incohibentist?	3.435 440
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⁸⁵ See Smith's note (Rouse and Smith 1992) ad loc.: '*inane* (116) refers to the air . . . through which the motes move, not to the void in the strict scientific sense.'

⁸⁶ It conforms to the *πρόληψις* of body, as described by Philodemus at *Sign.* col. 33.33–4.15 De Lacy and De Lacy (see p. 113).

⁸⁷ *scilicet hic a principiis est omnibus error* ('doubtless this wandering is brought about by the first beginnings', 2.132), on which, see Schiesaro 1990, 28–9.

⁸⁸ incohibentist *Eden* 1977: incohibescit *codd.*

Now, therefore, since when vessels are broken you perceive water flowing away on all sides and the liquid dispersing, and since mist and smoke depart into the breezes, believe that the soul too is poured out and dies much more swiftly, and is more quickly dissolved into its first constituents, once it withdraws and departs from the limbs of a man. And indeed since the body, which constitutes, as it were, the soul's vessel, is not able to contain it once it has been broken up by something and made thin by the drawing out of blood from the veins, how could you believe that the soul can be contained by any air, which is more rarefied than our own body, failing to hold it in?⁸⁹

As with the technical use of *inane*, the use of Latin *vas* as a metaphor for the body as container appears for the first time in Lucretius.⁹⁰ Besides the repetition of *vas*, we find other verbal parallels establishing this as a typical Lucretian multi-correspondence analogy: where literal *vasa* are *quassata*, the body-*vas* is *conquassatum* (the emphatic form of the compound signifying the greater relative durability of the human body); where the contents of the literal *vasa* 'flow out' *diffluere*, the content of the body-*vas* (i.e. the soul) is 'poured forth' *diffundi*.⁹¹

At 5.345–50, an argument against the divinity of the world, we find the 'ailments' (*morbis*) suffered by the world—conflagrations, earthquakes, floods—compared by analogy to the ailments (*morbis*, the same form in the same metrical *sedes*) familiar to us human beings:

nam cum res tantis morbis tantisque periclis	5.345
temptarentur, ibi si tristior incubuisset	
causa, darent late cladem magnasque ruinas.	
nec ratione alia mortales esse videmur,	
inter nos nisi quod morbis aegrescimus isdem	
atque illi quos a vita natura removit.	350

For when things were attacked by such great ailments and such great dangers, if a more harmful cause had lain upon them, they would have spread disaster and great ruin far and wide. Nor do we seem to be mortal

⁸⁹ The translation of the last clause here is Eden's (1977).

⁹⁰ It is found also at 3.555 and 793, and next appears in Latin at Cic. *Tusc.* 1.52. For the possible presence of the metaphor in Epicurus, see Bailey 1947 ad 3.434, and in Philodemus, see *De Morte* col. 4.39.1–6 Henry. This body-vessel metaphor is distinct from the soul-vessel metaphor encountered later in the book at 936–7 (on which, see Görler 1997; Reinhardt 2002).

⁹¹ A further intratextual parallel: the phrase *discedit in auras* at 436, used there of mist and smoke, is recycled from 3.400, where it is applied to the departure of the soul from the body at the point of death.

in any other way than by growing sick among ourselves of the same ailments as those whom nature has removed from life.

The application to the world of terms drawn from human (and animal) life is part of a broader scheme in Lucretius that has at its heart the characterization of the earth as a (female) human body.⁹² As David Sedley has demonstrated,⁹³ Lucretius' use of *morbis* here responds directly to a usage of Theophrastus, in whose discussion of the eternity of the universe, paraphrased by Philo of Alexandria at *De aeternitate mundi* 117–49, such disasters as conflagrations and floods are referred to as νόσοι.⁹⁴ Relevant to our understanding of Lucretius' explanatory purpose here is that this is the first use of *morbis* for an ailment of the world in extant Latin. A decade or so later the same term would be used by Cicero in his translation of νόσος at *Timaeus* 33a (Cic. *Tim.* 17), and it would later be used in this sense by Virgil and others. The novelty of the usage and image (in Latin, if not in Greek), leads Lucretius to explain it via an analogy in which the strange idea of an ailment of the earth is compared, via the technique of *diaphora*, to the more familiar (and literal) notion of bodily suffering and death among us humans.⁹⁵

While the trope of *diaphora* certainly plays a major role in Lucretius' scientific explanation, its use is not limited to purely technical terms or contexts. A few examples: at 3.363–4 we find two different senses of *lumina* in polyptoton: *fulgida praesertim cum cernere saepe nequimus*, | *lumina luminibus quia nobis praepediuntur* ('especially since we are often unable to see shining things because the light hinders our vision');⁹⁶ at 4.1049–52 we find *ictus* used in quick succession of both literal violence and the metaphorical violence of love, in a passage featuring a great deal of slippage between literal and

⁹² On which, see esp. Nugent 1994; Fowler 2002, 447–50; Garani 2007a, 81–93.

⁹³ 1998, 166–74, esp. 173–4.

⁹⁴ Philo, *Aet.* 149 (= Theophrastus fr. 184.200 Fortenbaugh/Huby/Sharples/Gutas). While the language of the fragment is Philo's own (Sedley 1998, 167 n. 11), the application of the disease metaphor to the flood at Plato, *Tim.* 23a7 (ὥσπερ νόσημα), a passage on which Theophrastus is drawing here (Sedley 1998, 173), suggests that the language and imagery of disease were indeed present in Theophrastus himself.

⁹⁵ The metaphor is further enriched by the medical sense of *causa* at 347, a usage found elsewhere in Lucretius (3.502, 1070) and current elsewhere in Latin of the mid-50s (Cic. *Har. Resp.* 39). *Incubo* in an epidemiological sense is not found earlier than Lucretius.

⁹⁶ See Jocelyn 1967, 334 for polyptoton of this type in early Latin literature.

metaphorical applications of military terms,⁹⁷ and where attention is further drawn to the history of the term *ictus* via a combination at line 1050 of lexical archaism and implicit etymology—*icimur ictu*;⁹⁸ at 2.59–61 (= 3.91–3, 6.39–41), immediately after reading of how boys fear things *in* (literal) *tenebris*, we are told that the *terrorem animi tenebrasque* must be dispelled by Epicurean doctrine; at 4.513–21 the literal crookedness of a badly designed structure (*si pravast regula prima* ‘if this first rule is crooked’) is matched with the metaphorical crookedness of faulty reasoning (*sic igitur ratio tibi rerum prava necessest | falsaue sit* ‘so, therefore, your explanation of things must be crooked and false’);⁹⁹ Lucretius’ metaphorical use of *contingere* at 1.947 to refer to the sweetening effects of poetic form on his *prima facie* unpalatable doctrine (*et quasi musaeo dulci contingere melle* ‘and as it were to touch it with the Muses’ sweet honey’) picks up the literal use of the same term nine lines earlier, on the practice of doctors to sweeten the rim of a cup of wormwood (*prius oras pocula circum | contingunt mellis dulci flavoque liquore* ‘first they touch the rim around the cup with the sweet yellow liquid of honey’).

A complex example of *diaphora* in a non-technical context is found at 5.590–603, a comparison between the sun and a spring of water (developing an idea already found at 5.281¹⁰⁰):

illud item non est mirandum qua ratione	5.590
tantulus ille queat tantum sol mittere lumen,	
quod maria ac terras omnis caelumque rigando	
compleat et calido perfundat cuncta vapore.	593
nam licet hinc mundi patefactum totius unum	597
largifluum fontem scatere atque erumpere lumen,	
ex omni mundo quia sic elementa vaporis	
undique conveniunt et sic coniectus eorum	600
confluit, ex uno capite hic ut profluat ardor.	
nonne vides etiam quam late parvus aquai	
prata riget fons interdum campisque redundet?	

⁹⁷ See D. West 1969, 94–5.

⁹⁸ For ancient understanding of the etymology, see Nonius 123.33 *icit significat percutit, ab ictu*. The evidence for the early Latin use of such etymological figures strikes me as too varied to support Brown’s (1987, ad loc.) identification of colloquialism here; see Hofmann and Szantyr 1965, 124–5 (cited by Brown).

⁹⁹ See D. West 1969, 69–70.

¹⁰⁰ *largus item liquidi fons luminis, aetherius sol* (‘likewise the great spring of flowing light, the ethereal sun’).

Likewise, this should be no cause for wonder, how so small a sun is able to send forth so much light as to fill the seas, all lands, and sky with flooding, and to pour warm heat over all things. For it may be that from here the single great-flowing spring of the whole world gushes forth and sends out its light, because in this way from the whole world gather the elements of heat on all sides, and their confluence flows together in such a way that the heat flows forth here from a single well head. And do you not see how widely a small spring of water sometimes floods the meadows and flows over the fields?

The metaphorical richness of the passage is well known.¹⁰¹ Not only do we have *diaphora* of two distinct terms—*fons* and *rigare*—but a range of further terms drawn from hydrology are also brought to bear: the sun *perfundat*, *scatere*, is *largifluus*, a *caput* ('well head'); the heat *confluit*, *profluat*. The term *largus* (found at 281 and in compound at 598) is particularly well suited to capture this blurring of lines between sunlight and liquid, since it was commonly used to refer to both light and rainwater.¹⁰² As with *morbus* used of the afflictions of the earth, this is the first appearance of this metaphor (sun as *fons*) in extant Latin; the presence of a technical Greek source—quite certain with *morbus*—is possible here too: the same image is found at Diogenes of Oinoanda, fr. 13 col. 4.4 Smith.¹⁰³ We have, then, a further example of the nearby and familiar illuminating the distant and controversial (note that the context is a sequence of arguments in the multiple mode), with the novel use of *fons* at 597 matched by its ordinary sense at 603.¹⁰⁴

At the start of the previous chapter, I outlined in brief an Epicurean theory of metaphor according to which metaphor consists of the assignment of new meanings to terms instead of or in addition to their primary meanings.¹⁰⁵ I further outlined how, in the light of Epicurus' advice (*Ep. Hdt.* 38, quoted at p. 35) that one should always look to the primary conception subordinated to each word,

¹⁰¹ See, for example, D. West 1969, 90–1; Schrijvers 1970, 242–4; Schiesaro 1990, 68–99 Garani 2007a, 107–8.

¹⁰² For *largus* of light, beginning with Cic. *Arat.* 34.394, see *TLL* 7.974.26–8; for *largus* of rainwater, see *DRN* 1.282 and passages cited at *TLL* 7.974.30–1.

¹⁰³ The analogy in Diogenes, however, is rather more complex—involving light flowing both out of and into the sun—and is arguably in closer alignment with what is found at *Ep. Pyth.* 90. On the relation of the image to Epicurus, see Smith 1993, 455. The image is not found in extant Greek poetry as far as I have been able to discover. The 'springs of the sun' at Aesch. *Prom.* 808 refer not to the sun itself but rather to the regions from which it arises.

¹⁰⁴ See Schrijvers 1970, 243; Gale 2009 ad 5.594–601.

¹⁰⁵ See pp. 43–4.

looking to a familiar primary conception underlying a term may be useful in interpreting that term even when it is used in a secondary, metaphorical sense.¹⁰⁶ The technique of *diaphora* may be understood in the light of this element of the Epicurean theory: Lucretius sets out the history of a word on the page for the reader to consider, and thus encourages readers, upon encountering novel secondary usages, to look to and compare the primary, literal use of the term.¹⁰⁷ The history of a given usage, then, as it is laid out on the page, serves as a guide to reading and interpretation; the task of the reader includes the tracing back of meanings across the history of the language.

3.6. DISCLAIMERS: 2.865–990

As a kind of repetition, *diaphora* functions as an implicit method for controlling the reception and interpretation of metaphor. Here I discuss an alternative, more explicit method. Michael Wigodsky (1974) identified a pattern of argument in *DRN* according to which Lucretius follows up certain potentially difficult passages with disclaimers about the status of the claims made in those passages.¹⁰⁸ In several cases it is clear that Lucretius uses this technique to limit the application and interpretation of his metaphors. Here I focus on just one passage (2.865–990), which gives a clear notion of how the process works.

As discussed already (Section 3.1), one central risk of adopting personifying metaphor as a descriptive strategy is that readers will take such personifications too far, failing to obey the intended limits of application and extending the personification to encompass, for example, attributes possessed by actual persons but not by atoms: sensation, rationality, mortality. 2.865–990 deals with the issue of sensation: *nunc ea quae sentire videmus cumque necessest | ex insensilibus tamen omnia confiteare | principiis constare* ('now you must confess that those things which we see to be sensate are nevertheless all composed of insensate elements', 865–7). The passage consists of nine loosely connected arguments against the notion that sensate things must be composed of sensate things—a notion that was most

¹⁰⁶ See p. 60.

¹⁰⁷ See Fowler 2002, 189; Garani 2007a, 154.

¹⁰⁸ See also Clay 1983, 166–8; Gale 1994, 123.

likely seen by Lucretius as Anaxagorean.¹⁰⁹ Despite the central thrust of the passage, which seeks to deny similarities between atoms and persons, we nonetheless find in it several striking examples of atomic personification. The purpose of juxtaposing atomic personification with an explicit disavowal of the notion that atoms are sensate is to highlight the limits beyond which the interpretation of personifying metaphor should not be pushed. The ninth argument, for example, (973–90) functions as a *reductio* of the notion that atoms should have sensation because their compounds may be sensate things: if atoms should be sensate for this reason, they should also be able to laugh, cry, inquire into their own origins, and possess wisdom, all of which, says Lucretius, is *delira . . . furiosaque*.¹¹⁰

The eighth argument of the sequence states that for a body to enjoy sensation it must be a structured combination of other bodies; since that is not true of atoms, they cannot be sensate. The role of atoms in causing sensation is expressed using personifying metaphors at 963–72:

praeterea quoniam dolor est, ubi materiai	
corpora vi quadam per viscera viva per artus	
sollicitata suis trepidant in sedibus intus,	2.965
inque locum quando remigrant, fit blanda voluptas,	
scire licet nullo primordia posse dolore	
temptari nullamque voluptatem capere ex se,	
quandoquidem non sunt ex ullis principiorum	
corporibus, quorum motus novitate laborent	970
aut aliquem fructum capiant dulcedinis almae.	
haut igitur debent esse ullo praedita sensu.	

Moreover, since there is pain when the bodies of matter, disturbed by some force through the living innards and limbs tremble inside their abodes, and since there is cheering pleasure when they return to their rightful places, we may know that the first beginnings can be beset by no pain nor can they take any pleasure in themselves, seeing as they are not composed of any bodies of elements, at the strangeness of whose motion they may feel pain or take some enjoyment of nourishing delight. Therefore, they ought not to be endowed with any sensation.

¹⁰⁹ The *reductio* at 963–90 extends that of 1.919–20 (of which 976–7 are a reworking), which concludes Lucretius' arguments against Anaxagorean *homoeomeria*; note also the reappearance of the *ignis/lignum* wordplay at 2.881–2.

¹¹⁰ On which passage, see, in this regard, Shearin 2015, 79–81.

Personifying metaphor is found at 965–6: with the exception of this passage, *trepido* is only ever used by Lucretius to refer to creatures (mostly humans) experiencing fear, usually due to ignorance of the truth,¹¹¹ and passive forms of *sollicito* also often feature in such contexts.¹¹² *Remigro* occurs only once in Lucretius, in this passage, but in contemporary texts is often used of people returning to their homes (cf. *sedibus*, 965).¹¹³ We find further apparently personifying terms attached to atoms at 970–1: *laborent*, *fructum capiant dulcedinis*: unlike the indicative *trepidant* and *laborant*, however, which are metaphors, these potential subjunctives are not metaphorical, but rather unreal: given that (a) (963–8) the causes of bodily pain and pleasure are located in the movements of a body's atomic parts, and that (b) (969–70) atoms are not composed of moving parts, it follows that atoms, unlike people, neither toil nor enjoy pleasure. We have, then, in this passage, the juxtaposition of personifying metaphor with the explicit rejection of the idea that atoms may possess the more literal features of personhood. A similar strategy can be identified in the fifth argument of the sequence (2.916–22), where, while explicitly denying the similarity of atoms to men and animals, Lucretius simultaneously draws on his familiar stock of personifying atomic metaphors, thus asserting the relevance and value of the figure (*coetus*, *concilium*) while simultaneously shutting down any interpretation of that figure according to which atoms share with men and animals such additional qualities as sensation.¹¹⁴

3.7. METAPHOR AND MISPRISION

The ability to change the meanings of words in a free and arbitrary way was crucial to the composition of a new philosophical literature

¹¹¹ Most famously in the formula *nam veluti pueri | trepidant atque omnia caecis in tenebris metuunt* at 2.55–6, 3.87–8, and 6.35–6.

¹¹² 3.731, 3.1049, 5.46, 6.1185; *sollicito* is used of atomic motion at 1.343 (and cf. 6.1038 on the role of moving air in the magnetic force).

¹¹³ e.g. Cic. *Tusc.* 1.118; *Ac.* 1.13.

¹¹⁴ See the interpretation of Garani 2007a, 53. Compare also the sixth argument in this passage (931–6) where Lucretius claims that a metaphorical (*tamquam*) birth can only occur if *concilium* or *conciliatus* has already occurred (for the sexual connotations of *concilium*, see Section 3.4 at p. 90); for the position against which Lucretius is arguing here, see esp. Furley 1966, 24–5.

in Latin. Lucretius took great advantage of that freedom, extending and elaborating the uses of ordinary terms in order to describe and enliven the alien world of atoms and void, as well as drawing creatively on the figurative traditions of Greek and Latin prose and poetry. In terms of didaxis, this semantic exuberance comes at a price: metaphor, by nature, is unstable; affording of multiple meanings and interpretations, and in order to work didactically, it requires a degree of cooperation between poet and reader in the process of establishing, identifying, and obeying the limits of correct interpretation. As we have now seen, Lucretius is not entirely without resources here: various strategies were employed in order to control and limit the reception of his figurative language.¹¹⁵ As stated at the outset of this chapter, however, the work of criticism need not be limited to tracing the contours of an ideal, intended, or constructed didactic relationship. As well as considering the poem from an internal perspective—the perspective of teacher and student—we may also wish to attend to those readings of the text which in place of readerly obedience allow for disconnection, estrangement, or even deliberate misprision.¹¹⁶ Consider first the following passage, from Book 5, where Lucretius treats of the creation of sky, sun, and moon:

sic igitur tum se levis ac diffusilis aether
 corpore concreto circumdatus undique flexit¹¹⁷
 et late diffusus in omnis undique partis
 omnia sic avido complexu cetera saepsit. 5.470
 hunc exordia sunt solis lunaeque secuta,
 interutrasque globi quorum vertuntur in auris;
 quae neque terra sibi adscivit nec maximus aether,
 quod neque tam fuerunt gravia ut depressa sederent,

¹¹⁵ One may be tempted to argue further that Lucretius' own stated poetics, as expressed in the analogy of the honeyed cup, provide readers with guidance on how to prioritize the different elements in their reading of the text, as they are instructed to privilege philosophical content over poetic form (for the sense of priority built into the analogy, see, for example, Volk 2002, 97: 'poetry for Lucretius is an *ancilla philosophiae*'). How applicable this message is to the interpretation of figurative language is, however, doubtful: metaphors, after all, are not merely formal features: they have content of their own, the identification and delimitation of which is part of the reader's interpretative task.

¹¹⁶ For the importance of considering a range of potential readerly responses to Lucretius, see the readings of O'Hara 2007: 68–9 and Gale 2018: 84–6; Taylor forthcoming a.

¹¹⁷ flexit *Lachmann* : saepsit *codd.*

nec levia ut possent per summas labier oras; 475
 et tamen interutrasque ita sunt ut corpora viva
 versent et partes ut mundi totius extent;
 quod genus in nobis quaedam licet in statione
 membra manere, tamen cum sint ea quae moveantur.

So, then, at that time the light and diffusive aether, with body formed, was encompassed and bent itself around on all sides; and, being spread out widely on all sides in every direction, so it hedged in all other things with keen embrace. The beginnings of sun and moon followed this, whose globes revolve in the air between earth and aether, which beginnings neither the earth nor the mighty aether adopted to itself, because they were neither so heavy as to sink down under their own weight, nor so light as to be able to glide through the topmost regions; and nevertheless they are placed between the two in such a way as to turn their living bodies and constitute parts of the whole world; and so it is with us: some limbs may remain in their proper place, while yet there are others which move.

At 5.110–45 Lucretius has already denied that the heavenly bodies have *vitali motu sensuque* ('living motion and sense', 125). Here, however, more than three hundred lines later, we find the phrase *corpora viva* (476) used of the sun and moon (reinforced by the analogy with living human bodies at 478–9), without explanation, disclaimers, or apology.¹¹⁸ The idea that heavenly bodies were living beings would not be unfamiliar or *prima facie* implausible to readers,¹¹⁹ and indeed the arguments of 5.110–45 anticipate a reader who may look favourably on just such a theory. At 5.476, then, we have the surprising appearance, without obvious immediate explanatory benefits, of a dangerous idea to which readers, before their exposure to Epicurean doctrine, may have been favourably inclined. Metaphor, of course, offers a way out for the obedient reader: we are already in a heavily figurative environment, with personifying metaphors found at 470 and 473: the aether's embrace is *avidus* 'greedy' (a usage unique to Lucretius),¹²⁰ and the failure of both earth and

¹¹⁸ Contrast the translation of both Rouse and Smith 1992 and Gale 2009 ('they revolve like living bodies'), which suggests the presence of simile, and accordingly rather reduces the starkness of the metaphor.

¹¹⁹ See, for example, Plato, *Timaeus* 40ab and in Stoicism, see SVF 1.120 = Long and Sedey 1987, 46D.

¹²⁰ Gale 2009 ad loc. identifies an echo here of the *hieroi gamoi* of Euripides (fr. 941 Kannicht) and Pacuvius (*trag.* 86 R³ = 79 Schierl), both of which feature the language of embracing.

aether to attract the bodies of sun and moon is described with an adoption metaphor (*adscivit*). Indeed, such personifying metaphors are found throughout Lucretius' account of the world, its origins, and eventual destruction in the first half of Book 5. The option is open to us, then, to read *corpora viva* as just another personifying metaphor.

Not all readers will wish to be obedient, however, and Lucretius' decision not to close down the interpretation of such phrases as *corpora viva* leaves alternative paths for readers to follow. For a Stoic reader, minded to resist an ameliorative metaphorical reading of *corpora viva*, the phrase sets up a spectacle of contradiction: the teaching voice of *DRN*, which fulminated against the idea of living heavenly bodies at 5.110–45, appears to come unstuck a few hundred lines later when, in a moment of poetic indiscipline, what has previously been suppressed once again breaks through. Such a reader may cast him- or herself not as the addressee of the poem, interacting with and learning from the authoritative teacher, but rather as a third-party observer of a contradictory persona engaged in a self-defeating endeavour; the principles of satire, not didaxis, may guide such a reader's responses to the text.¹²¹

From the perspective of reception history, this tendency of Lucretian language and imagery to open itself up to deconstructive interpretation may be seen less as a fault or risk in the text, and more as a generous source for creative misreading and misprision. Here I will consider just one indicative example. At *DRN* 5.91–6 Lucretius foretells the world's end:

quod superest, ne te in promissis plura moremur,
 principio maria ac terras caelumque tuere;
 quorum naturam triplicem, tria corpora, Memmi,
 tris species tam dissimilis, tria talia texta,
 una dies dabit exitio, multosque per annos
 sustentata ruet moles et machina mundi. 5.95

As to what remains, so that I don't delay you any further with promises, first look to sea, earth, and sky; their triple nature, their three bodies, Memmius, their three kinds so dissimilar, their three textures, a single day will give over

¹²¹ Similar arguments, *mutatis mutandis*, may be constructed even for those passages of the poem, as discussed in the Section 3.6, where Lucretius seeks explicitly to delimit the application of his personifying metaphors. Such arguments would stress the power of the metaphor to destabilize the explicit message, rather than the power of explicit statement to control the reception of metaphor.

to destruction, and the mighty form and *machina* of the world, held up through many years, shall fall down into ruin.

Machina in Latin ordinarily denotes an artificial construction: a siege engine, a frame, a scaffold, a stage. As with *corpora viva* at 476, we are given no explicit guidance by Lucretius here as to how this metaphor, laden as it is with connotations of design, should be interpreted in an Epicurean anti-teleological context. The history of the metaphor before Lucretius has recently been brilliantly explicated by Manuel Galzerano:¹²² in Plato's *Timaeus* (highly influential for, among others, the Stoics) we find the image of the world as an artificial system (σύστημα/σύστασις)¹²³ designed by the divine demiurge. In Cicero's *De Natura Deorum* (1.19) Velleius the Epicurean ridicules this idea:

quibus enim oculis animi intueri potuit vester Plato fabricam illam tanti operis, qua construi a deo atque aedificari mundum facit? quae molitio, quae ferramenta, qui vectes, quae machinae, qui ministri tanti muneris fuerunt? quem ad modum autem oboedire et parere voluntati architecti aër ignis aqua terra potuerunt?

By what power of visualization was your Plato able to look upon the architecture of so great a work—architecture with which he claims the world was constructed and built by god? What was the building process, what were the tools, the levers, the scaffolds, and who assisted in so great an undertaking? And how was it that air, fire, water, and earth were able to obey and submit to the will of the architect?

Whereas Velleius openly rejects the image of the *machina*—its connotations of design being obviously incompatible with his Epicureanism—Lucretius instead adopts and appropriates it as a term for the world of his own poem, while giving his readers no indication as to how it should be read. Lucretius' passage (and, in particular, the metaphorical *iunctura*, *machina mundi*) has enjoyed a long history of polemical appropriation and alteration.¹²⁴ Here I focus on one indicative late-antique response, in which the image

¹²² Galzerano 2018, 11–16; see also Marković 2008, 52.

¹²³ Translated by Cicero at *Tim.* 9 using the verb *machinor* and the noun *molitio* (compare Lucretius' *moles et machina mundi*); see Galzerano 2018, n. 23.

¹²⁴ Traced through Late Antiquity (but not as far as Boethius) by Galzerano 2018. For the life of the *iunctura* in the scientific literature of the Middle Ages and Renaissance, see Popplow 2007 and Mittelstrass 1995 respectively.

of the *machina mundi* is combined with the metaphor of *foedera naturai* (with discussion of which this chapter began (Section 3.1)). It is likely that the passage should be read not as a direct response to Lucretius, but rather as the culmination of a sequence of responses and developments that began as early as Manilius:

quod mundus stabili fide	
concordes variat vices,	
quod pugnantia semina	
foedus perpetuum tenent,	
quod Phoebus roseum diem	5
curru provehit aureo,	
ut, quas duxerit Hesperos,	
Phoebe noctibus imperet,	
ut fluctus avidum mare	
certo fine coerceat,	10
ne terris liceat vagis	
latos tendere terminos,	
hanc rerum seriem ligat	
terras ac pelagus regens	
et caelo imperitans amor.	15
hic si frena remiserit,	
quidquid nunc amat invicem,	
bellum continuo geret	
et, quam nunc socia fide	
pulchris motibus incitant,	20
certent solvere machinam.	

That the world with consistent faith varies its harmonious alternations; that the battling seeds hold to a permanent treaty; that Phoebus carries forth the rosy day in his golden chariot; that Phoebe should rule the nights which Hesperos led out; that the greedy sea should keep its floods within a fixed boundary; that wandering lands may not expand their broad limits: Love, which rules earth and sea and commands the sky, binds this course of things together. If this Love released the reins, whatever now loves would wage immediate war; and they would strive to undo the *machina* which now with mutual trust they drive on with lovely motions.

These are the first 21 lines of a sequence of glyconics with which Boethius ends the second book of his *Consolations*, written in prison shortly before the author's execution in AD 526.¹²⁵ Boethius describes

¹²⁵ *Phil. Cons.* 2 m.8.1–21, on which, see De Vogel 1963; Lapidge 1980, 834–6.

the power of divine *amor*, which regulates the order and balance of a divinely created, providentially structured world. While much of the content of the passage is Stoic in origin,¹²⁶ certain elements of its diction show a clear, if probably indirect,¹²⁷ debt to the diction of Lucretius:¹²⁸ *foedus* at 4 (cf. the more literal *sancto* . . . *foedere* at 22–3) refers to the permanent bond that holds the world together under the influence of divine love, mirroring, albeit in a very different doctrinal context, Lucretius' *foedera naturai*, while *machina* (21)¹²⁹ picks up the metaphor of *DRN* 5.96: without the balancing force of *amor*, the *machina* of the cosmos would collapse (*solvere*). In addition to these originally Lucretian elements in the diction of the passage, the general theme—love as an all-powerful guiding influence on the cosmos—is strikingly similar to the hymn to Venus which opens *DRN* 1. Despite these similarities in diction and theme, there are major doctrinal differences underpinning each text: Boethius' Neoplatonist universe, unlike that of Lucretius, is designed by God and guided by providence.¹³⁰ *Machina* for Boethius, then, is no metaphor; Boethius, following such figures as Manilius¹³¹ and Prudentius¹³² before him, has adopted an originally Lucretian term with connotations of artifice and design and reconfigured it to refer quite literally to the designed fabric of the world. The image of world as artificial system, initially borrowed from Plato and appropriated into metaphor by Lucretius, is thus reclaimed and returned to its original meaning in the later tradition, which culminates in these glyconics of Boethius.

¹²⁶ Bonnaud 1931, 566; De Vogel 1963, 4–5; for Stoic cosmic imagery in *Phil. Cons.* ('pervasive in the entire work'), see Lapidge 1980, 834.

¹²⁷ For natural *foedera* in Latin literature between Lucretius and Boethius, see Lapidge 1980, 835 n. 51.

¹²⁸ On Lucretian elements here, see De Vogel 1963, 4.

¹²⁹ For *machina* in this sense elsewhere in *Phil. Cons.*, see 3.12.14 *gubernaculum quo mundana machina stabilis atque incorrupta servatur* ('the rudder with which the *mundana machina* is kept stable and unspoiled'); 4.6.54 *neque enim fas est homini cunctas divinae operae machinas vel ingenio comprehendere vel explicare sermone* ('for nor is it right for man either to grasp with the intelligence or to explain in speech all the *machinae* of the divine work').

¹³⁰ For divine design, see, for example, *Phil. Cons.* 1 m.6.16–22; 3.8.8.

¹³¹ *Astr.* 2.68, 807. For Manilius' similar use of *foedus*, see Lapidge 1979, 355–7; 1980, 819–21, with Manil. *Astr.* 1.252 and 3.55.

¹³² *Hamartigenia* 236, 247–9; *Peristephanon* 10.339; *Cathemerinon* 9.13–14; see Brakman 1920, 442; Rapisarda 1950, 55; Galzerano 2018, 26–8.

3.8. CONCLUSION

From an internal, didactic perspective, Lucretius' extraordinary metaphorical technique, involving as it does the constant reshaping and reinvention of linguistic and literary convention and tradition, may be said to carry with it certain risks: in its open-endedness, its tendency to employ figurations whose literal meanings are directly at odds with the doctrine they are intended to illuminate, Lucretian metaphor risks contradicting and thereby undermining its own message. While such risks may, from a didactic perspective, be offset by the benefits (both explanatory and aesthetic) of metaphor, Lucretius nonetheless goes to great lengths in order to control and direct his metaphors' readerly reception.

From an external perspective—a perspective focused less on 'Lucretius' as a teaching voice in the text and more on Lucretius as a central figure in the development of Latin literature—we may see the open-endedness of Lucretius' densely figurative style less as a potential risk (or even flaw) in the text and more as a certain kind of gift to the poetic tradition of which *DRN* forms a foundational part. The semantic exuberance of Lucretian metaphor—the willingness to match novel literary ends with novel linguistic developments; to reinvent the language to meet the needs of the text—provides the evolving tradition with a model not for slavish obedience to ordinary or established usage, but rather for semantic reinvention and creative misprision.

APPENDIX: *OFFICIA CORPORIS*

Among his arguments for the existence of void (1.329–97), Lucretius twice refers to an *officium* of body. Each argument is *modus tollens*, first stating the consequents of there being no void, before denying (explicitly or implicitly) those consequents:

quapropter locus est intactus inane vacansque. quod si non esset, nulla ratione moveri res possent; namque officium quod corporis exstat, officere atque obstare, id in omni tempore adesset omnibus; haud igitur quicquam procedere posset, principium quoniam cedendi nulla daret res.	1.335
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Therefore, there is intangible space, void, emptiness. But if there were not, things would in no way be able to be moved; for that which is the *officium* of body—to block and resist—would be present in all things at all times; nothing, therefore, would be able to move forward, since nothing could begin to give ground.

denique cur alias aliis praestare videmus
 pondere res rebus nihilo maiore figura?
 nam si tantundemst in lanae glomere quantum
 corporis in plumbo est, tantundem pendere par est,
 corporis officiumst quoniam premere omnia deorsum,
 contra autem natura manet sine pondere inanis.

Finally, why do we see that some things are heavier than others even though they are no larger? For if there is the same amount of body in a ball of wool as there is in lead, they should both weigh the same, since the *officium* of body is to press everything downwards, but on the other hand the nature of void remains without weight.

Certain properties of body (namely resistance and weight) ensure that the consequents of there being no void would include (a) the impossibility of movement (due to body having resistance), and (b) the equality of weight between different substances (due to body having weight); from the fact that neither of these consequents holds true—movement is indeed possible, and different substances clearly have different weights—it follows that there must be void. By referring to body's properties of resistance and weight as '*officia*', Lucretius is engaging in social metaphor: '*officium*' is a term drawn straight from the lexicon of Roman social and moral discourse, and is here applied to a domain (the realm of physics and metaphysics) in which said discourse should have little traction or relevance.

The twin properties of weight and resistance feature in Philodemus' account of the preconception of body: one of four things signified by the phrases 'as such', 'qua', and 'according as', says Philodemus (*Sign. col. 33.33–4.15 De Lacy and De Lacy*), is the 'particular definition' (ἰδιος λόγος) of a thing: 'and this is the preconception, as when we say that body qua body has weight and resistance'.¹³³ Preconceptions, as we have seen (above, Section 1.7), are foundational concepts, formed after repeated perceptual experience of things, which are shared among all individuals with appropriate experience. As both Epicurus (*Ep. Hdt. 37–8*) and Diogenes Laertius (10.33) make clear, possessing a preconception enables us to engage in inquiry about the object of that preconception. So, the preconception of body includes the properties

¹³³ ταύτην πρόληψιν, ὧ[σ]περ ὅταν εἴπωμεν τὸ σῶμα καθὸ σῶμα ὄγκον ἔχειν καὶ ἀντι[τυ]πίαν (translation: De Lacy and De Lacy 1978, adapted). Sextus' report of the Epicurean preconception of body (*M. 10.240*) suggests that additional properties were included: λέγει ὁ Ἐπίκουρος τὸ σῶμα νοεῖν κατ' ἐπισύνθεσιν μεγέθους καὶ σχήματος καὶ ἀντιτυπίας καὶ βάρους ('Epicurus says that we conceive of body in accordance with a combination of size, shape, resistance, and weight').

of weight and resistance, properties called by Lucretius the *officia* of body.¹³⁴ In Epicurean terms, these are permanent properties (*ἀεὶ συμβεβηκότα*) of body, i.e. properties that body must always have in order to be body. Other Epicurean preconceptions are represented in this way: the preconception of god includes the properties of blessedness and imperishability (Epicurus, *Ep. Men.* 123); the preconception of justice includes the property of mutual benefit (*KD* 37–8). The content of a preconception, then, may be represented as a bundle of permanent properties, which are necessarily shared by all members of the class in question.¹³⁵

The two references, at 1.336 and 362, to the *officia* of body, may thus be interpreted together as a Lucretian articulation of two elements of the preconception of body, with the term ‘*officium*’ being used on each occasion to refer to one of the permanent properties making up the preconception. We should note that these uses of ‘*officium*’ are unique in Lucretius; while permanent properties are discussed elsewhere in some detail (1.449–63, using the term *coniuncta*, a calque of Epicurus’ term *συμβεβηκότα*),¹³⁶ only here are they described with social metaphor. ‘*Officium*’ in its literal sense refers either to a positive (beneficial, helpful, or respectful) act that is carried out in fulfilment of an obligation to someone or something, or to the underlying obligation itself.¹³⁷ It is, accordingly, a powerful term in the lexicon of social and political interaction, and played a central role in Roman ethical discourse.¹³⁸ One function of the Lucretian metaphor is simplification and familiarization: this is not a point of Epicurean theory into which Lucretius probes in any detail (and certainly not at this point in Book 1), and the reader is not being asked to develop a deep understanding of Epicurean metaphysical principles. Lucretius, then, has taken a fairly technical element of the underlying Epicurean theory (the notion of permanent properties which together make up a preconception) and expressed it using social metaphor in terms that will be familiar to the ordinary reader; this strategy will be dropped later in the book when Lucretius turns to the technical specifications of different kinds of Epicurean property. Another function of the personification of permanent properties as *officia* is to

¹³⁴ On resistance as an ineliminable property of body, see also Sextus, *M.* 10.221–2 *ἀχώριστα μὲν οὖν ἐστὶ τῶν οἷς συμβέβηκεν ὥσπερ ἡ ἀντιτυπία μὲν τοῦ σώματος, εἴξῃς δὲ τοῦ κενοῦ· οὔτε γὰρ σώμα δυνατόν ἐστί ποτε νοῆσαι χωρὶς τῆς ἀντιτυπίας οὔτε τὸ κενὸν χωρὶς εἴξεως, ἀλλ’ αἰδιον ἑκατέρου συμβεβηκὸς τοῦ μὲν τὸ ἀντιτυπεῖν τοῦ δὲ τὸ εἴκειν.* (‘Inseparable, for instance, from the things to which they belong are the resistance of body and the non-resistance of void; for body can never be conceived as without resistance, or void without non-resistance; but each has a property that is eternal, the one resistance, the other non-resistance.’ (trans. Bury 1953, adapted)), with *DRN* 1.454 *tactus corporibus cunctis, intactus inani.*

¹³⁵ See Betegh 2006, 280; Sedley 2018, 112.

¹³⁶ See below, pp. 184–6.

¹³⁷ *OLD* s.v. ‘*officium*’ §§1–3.

¹³⁸ Hellegouarc’h 1972, 152–63.

anticipate the metaphor of *foedera naturai* which the reader will shortly encounter for the first time at 1.586. Lucretian metaphors, for the most part, do not stand alone, but form part of a broader conceptual scheme. The duties of body (i.e. to have weight, and to offer resistance) are, we might say, set down in the governing treaties of nature.

Lucretian Etymologies

In the previous two chapters I considered the emergence and exploitation of metaphor and other related tropes as one element of the Epicurean history of language development, as adumbrated at *Ep. Hdt.* 76. Here I turn to another, namely the free development, following the initial natural stage, of new words formed on rational principles. I argue here for an approach to etymology in *De Rerum Natura* which sees Lucretius as exploring diachronic word change, i.e. derivation. I conceive of Lucretius' task here as archaeological and exploratory: laying out on the page, for the benefit and delight of the reader, suggestions both implicit and explicit regarding the history of the Latin lexicon. As was the case with metaphor, we may discern, embedded in Lucretius' account of the universe, a linguistic metanarrative, which traces back the history and development of Lucretius' own language.

4.1. THE VARIETY OF ETYMOLOGICAL RELATIONS

In Plato's *Cratylus* we find a distinction between primary (*πρῶτα*) and secondary (*ὑστέρᾳ*) names. Socrates first hints at such a distinction at 414c, but it does not become the focus of the discussion until 421c, after secondary names have been considered for some time. Hence we arrive at primary names via secondary names: the discussion follows words back through time, eventually arriving at their origins.¹ Socrates says,

¹ The etymological section begins (394e–396c) with Socrates following the genealogy of the Atreidae back from Orestes to Uranus: this establishes the etymological

and Hermogenes agrees, that there must be some end to the analysis of names into the elements from which they are formed.² Socrates then goes on to ask at what point this end is found. The answer he gives is that eventually we will arrive at those names which are not themselves formed out of other names: these are the 'primary elements' (στοιχεῖα) of all other names, with which such an inquiry must end.³ This, then, is the distinction between primary and secondary names: secondary names are formed from existing names; primary names are not. The very first names, then, must have been primary (secondary names, by their nature, require the prior existence of primary names in order to come into being). It is the role of the name-giver (called by Plato the 'rule-setter', νομοθέτης) first to form primary names (according to a set of mimetic associations between certain sounds/letters and certain qualities possessed by the referents) and later to form secondary names on the basis of pre-existing primary names. This dual role of the name-giver is summarized at 427c: καὶ τὰλλα οὕτω φαίνεται προσβιβάζειν καὶ κατὰ γράμματα καὶ κατὰ συλλαβὰς ἐκάστω τῶν ὄντων σημείον τε καὶ ὄνομα ποιῶν ὁ νομοθέτης, ἐκ δὲ τούτων τὰ λοιπὰ ἤδη αὐτοῖς τοῦτοις συντιθέναι ἀπομιμούμενος. 'In the same way, the rule-setter apparently used the other letters or elements as likenesses in order to make a sign or name for each of the things that are, and then compounded all the remaining names out of these, imitating the things they name.'⁴

Despite the obvious differences from Plato, the Epicurean account of language development also allows us to posit a basic distinction between primary and secondary names. Following the first, natural stage of language development, 'particular impositions were made by consensus, people by people, in order that the designations might become less ambiguous among speakers, and more concisely expressed. Also, men with understanding, introducing certain things that were previously not understood, recommended certain utterances [i.e. as names for them]' (*Ep. Hdt.* 76, see p. 29). We are given far less information about the nature of this creative process in Epicurus than we are in the *Cratylus*, but it is clear that this second stage, involving as it does the creation of new coinages (τὰ ἴδια τεθῆναι), provides a

science as one which moves its focus progressively further and further back in time: see Ademollo 2011, 179.

² 421de.

³ 422ab. On στοιχεῖα meaning 'name', not 'letter' here, see Ademollo 2011, 259.

⁴ Translation: Reeve 1997.

potential mechanism for an Epicurean science of linguistic derivation, with secondary names being developed, under the influence of reason, out of existing primary names.⁵ While Plato is clear that the units out of which primary names are formed are mimetic rather than descriptive, Epicurus leaves us with no clear information about the semantic status of the elements out of which primary names are formed (and, as we shall see, Lucretius' famous atoms/letters analogies offer us little help here).

The existence of both primary and secondary names on the Epicurean model allows us to introduce an important distinction between two types of etymological relation. Consider, for the sake of illustration, the following two pairs of words, both of which are discussed in the *Cratylus*:

ἡδονή/ἡ ὄνησις: ἡδονή ('pleasure') is a secondary name derived from ἡ ὄνησις ('enjoyment'): ἡ τε γὰρ ἡδονή, ἡ πρὸς τὴν ὄνησιν ἔοικε τείνουσα πρᾶξις τοῦτο ἔχειν τὸ ὄνομα—τὸ δέλτα δὲ ἔγκειται, ὥστε ἡδονή ἀντὶ ἡονῆς καλεῖται ('ἡδονή seems to have been given its name because it is an activity that tends towards ἡ ὄνησις, but a 'd' has been inserted and we call it ἡδονή instead of ἡονή', *Cratylus* 419bc).⁶ The name-giver forms ἡδονή on the basis of ἡ ὄνησις, which is descriptive of the nature of ἡδονή.

σειέσθαι/σεισμόν: both σειέσθαι ('shake') and σεισμόν ('shock') are primary names. The similarity in their sound (they share the letter 's') is to be attributed not to a derivational connection, but to a similarity in the natures of their referents: ὥσπερ γε διὰ τοῦ φεῖ καὶ τοῦ ψεῖ καὶ τοῦ σῖγμα καὶ τοῦ ζῆτα, ὅτι πνευματώδη τὰ γράμματα, πάντα τὰ τοιαῦτα μεμῖμηται αὐτοῖς ὀνομάζων, οἷον τὸ 'ψυχρὸν' καὶ τὸ 'ζέον' καὶ τὸ 'σειέσθαι' καὶ ὅλως σεισμόν. καὶ ὅταν πού τὸ φουσῶδες μιμῆται, πανταχοῦ ἐνταῦθα ὡς τὸ πολὺ τὰ τοιαῦτα γράμματα ἐπιφέρειν φαίνεται ὁ τὰ ὀνόματα τιθέμενος. ('Similarly he uses phi, psi, sigma, and zeta to do the imitating in such names as *psychron* 'chill', *zeon* 'seethe', *seiesthai* 'shake' and *seismon* 'shock', because all these letters are pronounced with an expulsion of breath. Indeed, whenever the name-giver wants to imitate some sort of blowing or hard breathing, he almost always seems to employ them', *Cratylus* 427a).⁷ The name-giver has formed both σειέσθαι and σεισμόν using a

⁵ Although we should note that the names developed and imposed during this second stage need not all have been secondary: we could imagine, for example, the reason-led development of entirely new names based on onomatopoeia.

⁶ Translation: Reeve 1997, adapted.

⁷ Translation: Reeve 1997, adapted.

sigma, because the expulsion of air that accompanies the pronunciation of sigma is held to be mimetic of the referent of each name.⁸

Clearly, each of these pairs includes words which stand in some sort of etymological relation to one another, but the etymological relation between *σεῖεσθαι* and *σεισμόν* seems quite different from the etymological relation between *ἡδονή* and *ἡ ὄνησις*. I will call *σεῖεσθαι*/*σεισμόν* an example of a ‘synchronic’ etymological relation, and *ἡδονή*/*ἡ ὄνησις* an example of a ‘diachronic’ etymological relation. A diachronic etymological relation is a derivation: a new (and secondary) name formed on the basis of an existing name. A synchronic etymological relation is not a derivation: it consists of two primary words with similar referents and thus similar forms. This distinction will prove useful in our analysis of Lucretian etymology.

4.2. SYNCHRONIC ETYMOLOGICAL RELATIONS IN LUCRETIUS?

Plato explains synchronic relationships between primary names like *σεῖεσθαι* and *σεισμόν* by reference to the rational actions of the name-giver. Given that Epicureans reject the doctrine of the name-giver (*DRN* 5.1041–55; Diogenes of Oinoanda fr. 12 Smith), any synchronic relations between primary words on the Epicurean account would have to be explained in a different way. What would be required is a mechanism whereby a similarity in the referents of two primary words (akin to the similarity between the referents of *σεῖεσθαι* and *σεισμόν*) resulted, during the first stage of linguistic development, in an analogous similarity in the primary words themselves. The mechanism that determined the form of the first names, as was seen in Section 1.3, featured the compulsive utterance of certain sound patterns in response to certain sensory stimuli. One might hypothesize, then, that a perceptible similarity in two different objects may have resulted in similarities between the utterances made in response to perceiving those objects. So, when Lucretius, at 6.540–1,

⁸ For the distinction between the mimetic etymologies of primary names and the descriptive etymologies of secondary names, see Ademollo 2011, 181.

engages in wordplay on *flumen* ('river') and *fluctus* ('flood'), an Epicurean explanation of the similarity between those two words might appeal not to the rational linguistic design of the second stage but rather to the automatic and natural utterances of the first: the similar appearances of rivers and floods prompted similar utterances (both beginning *flu-*) in the first language users. Such a reading of Lucretian wordplay, while speculative, would be consistent with what we know of the Epicurean linguistic theory.

In an article published in 1941, Paul Friedländer sought to push further, connecting the linguistic naturalism of Epicurus' first stage to the analogies between atoms and letters which are found five times in the transmitted text of *DRN*,⁹ and arguing for the relevance of etymology to physical reality at the atomic level. The atoms/letters analogies make a number of different comparisons between the ways in which objects are composed of atoms and the ways in which words are composed of letters, in the first four instances exploiting the semantic ambiguity of *elementa* to make their point.¹⁰ Friedländer's highly influential article made an explicit connection between Lucretius' commitment to natural language origins and his use of the atoms/letters analogies: the former, for Friedländer, was the 'foundation' of the latter.¹¹ At the heart of this 'atomological' reading, which

⁹ 1.196–8, 1.823–9, 1.912–14, 2.688–99, 2.1013–22. The clearest recent discussion of the similarities and differences between each instance of the analogy is that of Holmes (2005, 528–30).

¹⁰ Since Diels 1899 it has often been assumed that this translates a similar pun on *στοιχείον* which was once present in the Greek atomists. This claim is open to objection in the light of Eudemos of Rhodes' statement (fr. 31 Wehrli = Simpl. *In Phys.* 7.10 Diels) that the usage of *στοιχείον* in the sense 'element' (*τὰς τοιαύτας ἀρχάς*) was a Platonic coinage (*πρῶτος ἀνόμασε*; this sense is not found in extant texts before Plato). It is equally unlikely that Lucretius is translating *στοιχεῖα* from a text of Epicurus: Wigodsky (2007, 537) argues convincingly that for Epicurus *στοιχεῖα* were not atoms, but 'the simplest types of compounds'. The analogy between atoms and letters (regardless of *στοιχείον*) certainly was employed by the early atomists: see Arist. *De Gen. et Corr.* 315b6–15 and *Met.* 985b15–19. The former of these is perhaps most similar to the Lucretian analogies, concerned as it is with the effects of minor alterations of the letters of a word, citing as examples *παραγῶδια* and *τρυνγῶδια* (*κωμῶδία* *codd.*; for the emendation, see M. L. West 1969 and for its confirmation, see Rashed 1994). For a general history of the alphabet analogy, see Vineis 1990; for the Greek term, Burkert 1959. Armstrong 1995 and Porter 1989 trace potential connections with Philodeman discussions of the impossibility of metathesis in poetry.

¹¹ 1941, 17.

has been picked up by a number of later interpreters,¹² is the notion that the natural origins of language, on the Epicurean model, involve a link between the forms of names and the features of their referents on the atomic level.

In the light of what we know about the Epicurean theory of language, we may ask whether it is possible to take such claims literally, or whether any 'atomological' reading of Lucretian wordplay should instead be confined to the level of the figurative.¹³ One way of arguing for the former interpretation, which might initially seem promising, would be to appeal to atomic shape as something that could have exerted a direct and unmediated force on the perceptions of the first language users. Lucretius argues (2.381–477) that certain elements of our perceptual experience are directly caused by the physical interaction of our sense organs with the shapes of different kinds of atoms: so, pleasant tastes, like that of honey, are caused by smooth, rounded atoms; bitter tastes, like that of wormwood, by hooked atoms; the sharp tastes of wine lees and elecampane are caused by atoms angled in such a way as to tickle the senses; feelings of hot and cold are caused by the atoms of fire and frost being toothed (*dentata*) in different ways. Similar explanations hold for pleasant and unpleasant experiences in sound, smell, and vision (2.408–43).

Certain elements, then, of the experiences of the first language users would have been directly caused by the shapes of the atoms out of which the objects they encountered were composed. Perhaps, then, a similarity in two early verbal responses to (e.g.) two distinct pleasurable tastes could be explained in 'atomological' terms: a similarity in two utterances made in response to two different pleasant-seeming

¹² See, for example, Snyder 1980, 29–31; Ferguson 1987, 100; Maltby 2005, 96. Not all interpreters accept the 'atomological' interpretation: so Dalzell 1987, 1991; Holmes 2005, n.112; Marković 2008, 121–2; see also Volk 2002, 101–2. If we reject, as I argue we should, strong 'atomological' readings, there is still room for weaker forms of 'atomology' such as that put forward by Dionigi (1988, 31–6; 2008, 28–30), for whom instances of wordplay elsewhere in the text serve simply as illustrative reminders of the atoms/letters analogies.

¹³ Friedländer's arguments have been understood both ways: as implying a real ontological connection between atoms and objects (thus Holmes 2005, n. 112), or as mere analogies (Volk 2002, 103). My objective here is to demonstrate that the 'real ontological connection' view, whether or not Friedländer meant to argue for it, cannot be robustly supported by the Epicurean theory.

Do you see, then, as I said a little while earlier, that it often matters a great deal with which others, and in what position, those same first-beginnings are held, and what motions they give and receive among themselves, and that the same first-beginnings, changed just a little in their relations, create fires and firs?¹⁶ Just as the words themselves have letters changed just a little in their relations, when with distinct utterance we denote fires and firs.

Here we may also look back to the second atoms/letters analogy at 1.814–29, which forms part of the eighth argument against Empedocles and limited pluralism. The function of the analogy is to show that a four-element system is not required in order to account for the great diversity of things that exist. Rather, the same basic constituents (atoms), with alterations of configuration and relative motion, can account for everything:

namque eadem caelum mare terras flumina solem 820
constituunt, eadem fruges arbusta animantis,
verum aliis alioque modo commixta moventur.

For the same first-beginnings make up sky, sea, earth, river, sun, the same make up crops, trees, and living things, but only when mixed and moved with different things in different ways.

When the analogy is eventually drawn with the composition of words from *elementa*, the point is not about the similarities between words, but the differences in both sound (*sonitus*) and referent (*res*) which can result from changes in the order of letters:

quin etiam passim nostris in versibus ipsis
multa elementa vides multis communia verbis,
cum tamen inter se versus ac verba necessest 825
confiteare et re et sonitu distare sonanti.

Moreover, here and there in my own verses you see many letters common to many words, when you must nevertheless confess that verses and words differ one from another in both meaning and sound of utterance.

Similarities between two objects on the microscopic level of atomic structure do not entail analogous similarities on the macroscopic level of outward appearance, and this is clearly true in the cases of wood and fire: despite commonalities in atomic composition (which allows fire to ‘emerge’ from wood with just a small atomic alteration), the outward appearance of wood is very different indeed from the

¹⁶ ‘Fires and firs’ is the translation of Rouse and Smith 1992.

outward appearance of fire. As we have seen, however, regarding the origins of such words in early communities, the outward appearance of objects plays a direct role in determining the natural utterances of names in response. So, in the case of wood and fire, it cannot be true that similarities on the level of atomic composition were responsible for the similarity in the forms of the words *ignis* and *lignum*, since these atomic similarities would have been masked by major differences on the macroscopic level. It would be a mistake, therefore, to understand the atoms/letters analogies as implying some kind of reliable or widespread causal connection between the atomic composition of objects and the phonological structures of words.

On the Epicurean account, then, the scope for synchronic etymologies between primary names is fairly limited. The Epicurean linguistic theory, however, does not end with the natural stage, but extends to include the rational development and imposition of new names. This is what, in the case of ἡδονή/ὄνησις, was described in Section 4.1 above as a diachronic etymology, i.e. a derivation. In Sections 4.3–4.6 I will argue that Lucretian etymology and etymological wordplay are best understood as being concerned with derivational connections between words—connections that would have emerged as a result not of the naturalism of the first stage, but rather of the rationalism and conventionalism of the second stage.

4.3. EXPLICIT ETYMOLOGIES IN LUCRETIUS

Epicurus' second stage of language development (*Ep. Hdt.* 76) provides a mechanism of language change according to reason which leaves plenty of room for later etymological speculation on the basis of diachronic relations between words, i.e. derivations.¹⁷ It is in the context of this second stage of linguistic development that much of Lucretius' etymologizing, explicit and implicit, should be understood.

¹⁷ A possible Epicurean example of etymological play involving derivations of this sort is found in the implicit etymology between noun and verb at Sextus *M.* 10.2 (Usener 271): χωρούντων δὲ δι' αὐτῆς σωμάτων χώρα γίνεται: see Long and Sedley 1987, 1.28; Marković 2008, 121. If the process of linguistic improvement described at *Ep. Hdt.* 76 was thought to have included the combination of different verbal forms into single paradigms (perhaps in order increase 'conciseness'), then we might consider the juxtaposition there of οὐ συνωρόμενα with συνειδότες as an implicit example of such combination.

For Snyder, Lucretius' apparent suppression of this second stage in his account of the emergence of language at 5.1028–90 shows that his etymologizing should be considered in the light of the natural origins of words. Lucretius, she says, displays a 'rather single-minded emphasis on the natural origins of language and [a] consequent neglect of his master's ideas about logismos' (1980, 22). This, however, is to ignore passages elsewhere in the poem where Lucretius discusses the rational origins of words.

On four occasions in *DRN* Lucretius marks the presence of an etymology explicitly using verbs or phrases of naming, sometimes coupled with etymological explanations and mentions of name-givers.¹⁸ As I shall argue, these should be understood as implying the existence of diachronic etymological relations between words (although, as will be seen, the precise etymology in question is not always spelled out in each instance). Three out of these four occasions occur within 500 lines of Book 6, and concern words (one proper noun, two common nouns) with Greek origins.

Avernus:

principio, quod Averno vocantur nomine, id ab re	6.740
impositumst, quia sunt avibus contraria cunctis,	
e regione ea quod loca cum venere volantes,	
remigii oblatae pennarum vela remittunt	
praecipitesque cadunt molli cervice profusae	
in terram, si forte ita fert natura locorum,	745
aut in aquam, si forte lacus substratus Avernus.	

First of all, their being named 'Avernian' stems from their character, because they are harmful to all birds, in that, when they have come in flight over those places, forgetting to scull forward through the air, they loosen the sails of their wings and fall headlong, sinking down with slackened neck to the ground, if they happen to fall on dry land, or into the water, if an Avernian lake chances to be below.

We note here Lucretius' use of the verb *imponere*, which in grammatical and linguistic contexts has the technical meaning 'apply a name to a thing'.¹⁹ The causal clause beginning in line 741 (*quia* . . .),

¹⁸ For verbs and phrases of naming and mentions of name-givers as etymological indicators, see O'Hara 2017, 75–9.

¹⁹ See *OLD* s.v. *impono* 14b and Varro's discussions of *impositio* at *L.* 5.1–3 and 6.3; on the meaning of *natura* in the latter passage of Varro, see esp. de Melo 2019b.

which gives an explicit reason for this name being applied to this place, makes it clear that we are not dealing here with an example of natural, automatic naming. Language users have chosen the name ‘Averna’ for the locality under discussion, given the effect it has on birds; we have here, then, an example of derivation, i.e. the formation of a new term (*impositio*) via rational choice and reflection.²⁰ The *nomen* is described as having been imposed *ab re*, a phrase also used in etymological contexts by both Varro and Livy.²¹ It must mean that the choice of the name ‘Averna’ was based on the rational consideration of the nature (*res*) of the *loca* themselves, as described in the causal clause that follows. There is, then, a close relationship between the name (*nomen*) and the referent (*res*), but it is a relationship mediated by the rational process of *impositio* (see τὰ ἴδια τεθῆναι at *Ep. Hdt.* 76).

Exactly which etymology is suggested is left unclear.²² Lucretius has been understood as implying an etymology of *Avernus* from *avis* (*quia sunt avibus contraria cunctis*);²³ alternatively, he may be identifying it as a calque of the Greek name Ἀορνος,²⁴ in which case the causal clause translates ὄρνις with *avis* and captures the privative alpha with *contraria* + dative.²⁵ While the presence of the word *avibus* in the causal clause may seem to speak in favour of an etymology from *avis*, the Ἀορνος etymology has the weight of tradition behind it, being used of birdless lakes at least as far back as Sophocles (fr. 748 Radt), and being used of the lake at Cumae (mentioned by Lucretius at lines 747–8) as early as the mid-third

²⁰ See also Maltby 2014, 356.

²¹ L. 5.2, from Varro’s definition of etymology; Livy 1.17.6 (on *interregnum*); 4.8.7 (on *censores*); 37.31.10 (on *Naustathmon*); 38.18.4 (on *Axulon*).

²² See also Snyder 1980, 105.

²³ Thus Maltby 2014, 355–7.

²⁴ See Serv. ad. A. 3.442: *unde et Avernus dictus est, quasi ἄορνος*. Servius will sometimes gloss a Greek privative alpha with a Latin phrase along the lines of Lucretius’ *contraria*: see, e.g., Serv. ad. A. 6.107 (on *Acheron*): *quasi sine gaudio* (with which, compare Lucretius’ description of Acheron at 3.39–40 as a place which *neque ullam | esse voluptatem liquidam puramque relinquit*); Serv. ad. A. 6.747 (on *atomus*): *quia simplices sunt nec recipiunt sectionem* and ad. *Ecl.* 6.31 (also *atomus*): *quae τομήν, id est sectionem, non recipiunt, unde et atomi dictae sunt*. In each case the part of the Greek noun which is negated is glossed with a direct translation (–χέρων > *gaudium*; –τομος > *sectio*; cf. ?–ορνος > *avis* in Lucretius), while the privative alpha itself is glossed with a phrase or clause expressing negation (*quasi sine*; *non/nec recipiunt*).

²⁵ For the phrase *avibus contraria* of the *Averna loca* compare Nonius 14.4–8 (quoting Lucretius): *appellatus est, quia est odor eius avibus infestissimus*; see also Pliny, *HN* 4.1.2: *locus aornos et pestifera avibus exhalatio*.

century BC (Lycophron, *Alex.* 704: *λίμνην τ' Ἀορνὸν ἀμφιτορνωτῆν βρόχῳ* 'Lake Aornos rounded with a snare');²⁶ it may thus already be in the mind of the reader. There is no clear right answer here: the precise nature of the etymology is underdetermined in the text, leaving the selection of a single interpretation as a matter for the reader.

prester:

quod superest, facilest ex his cognoscere rebus,
presteras Graii quos ab re nominitarunt,
in mare qua missi veniant ratione superne. 6.425

Next it is easy from this for you to understand how those things the Greeks have named after their characters 'presters' come down into the sea, being sent from above.

The phrase *ab re* (424) points to an etymology of similar type to that discussed above for *Avernus*, i.e. a rational derivation based on observation of the nature of presters. The presence of the etymology is marked by the naming verb *nominitarunt*,²⁷ and the mention of the name-givers, *Graii*. The source word, once again, is not mentioned. The etymology referred to is surely the Greek verb *πρήθω* 'burn', an etymology for *πρηστήρ* which was probably explicit in Heraclitus,²⁸ and is certainly present at Xenophon *Hell.* 1.3.1: *ὁ ἐν Φωκαίᾳ νεὼς τῆς Ἀθηνᾶς ἐνεπρήσθη πρηστήρος ἐμπεσόντος* ('the temple of Athena at Phocaea, struck by a prester, was set on fire'). Seneca agrees on the Greek origin, and strongly implies an etymological connection with fire: *inflammatur et efficit quem πρηστήρα Graeci vocant; hic est igneus turbo* ('it is set ablaze and creates that which the Greeks call a "prester"; that is, a fiery whirlwind', *NQ* 5.13.3; see also the Elder Pliny, *HN* 2.133). What is unusual about this Lucretian passage is that no mention of fire is made in the surrounding lines (although we do find the metaphorical forms *fervescunt* at 428 and *fervere* at 442, both of which bear connotations of heat).

²⁶ See further Austin 1977 on *Aeneid* 6.242 and Lightfoot 2014 on Dionysius *Periegetes* 1149–51.

²⁷ The use of the iterative form is likely *metri causa*; see Bailey 1947, 1.136.

²⁸ A14 DK (= Aët. 3.3.9): *πρηστήρας δὲ κατὰ νεφῶν ἐμπρήσεις καὶ σβέσεις*. For Heraclitus' use of the term *prester*, see B31 DK (= Clem. *Strom.* 5.105) *πυρὸς τροπαὶ πρῶτον θάλασσα, θαλάσσης δὲ τὸ μὲν ἥμισυ γῆ, τὸ δὲ ἥμισυ πρηστήρ*.

magnes:

quod superest, agere incipiam quo foedere fiat 6.906
 naturae, lapis hic ut ferrum ducere possit,
 quem Magneta vocant patrio de nomine Grai,
 Magnetum quia fit patriis in finibus ortus.

Next, I will begin to show by what treaty of nature it comes about that this stone—called ‘Magnet’ by the Greeks after the name of its homeland, it being found in the home territories of the Magnetes—can draw iron to itself.

The magnet is introduced with this brief etymological explanation, before a digression (6.917–97) in which Lucretius establishes the basic principles underpinning his explanation of magnetism, which mostly concern the porosity of all compound objects and the implications of that porosity for the characters of those objects. The etymology here is marked by the naming verb *vocant* and, as in the case of the *prester*, the Greek name-givers are mentioned. Here the source word is explicitly and unambiguously mentioned: the stone is called ‘magnet’ because it is found in the land of the *Magnetes*, the geographical connection being emphasized by the repetition of *patrio/patriis* in the same metrical *sedes* in lines 908 and 909, in the first instance qualifying the name itself, and in the second instance qualifying the land in which the stone is found.²⁹ The relatively arbitrary character of the *magnes/Magnetes* etymology is noteworthy: the name does not describe the perceived characteristics or qualities of the object itself (compare the cases of *prester* and *Avernus*, both named *ab re*), but simply the place in which the stone happens to be found.

²⁹ An alternative local etymology may be hinted at in 1044 with the mention of *Samothracia ferrea*: the Etymologicum Magnum (s.v. *Μαγνήτης*) suggests that the alternative name for magnet, the ‘Heracleian stone’, has its origins in the city of ‘Heracleia’ on the island of Samothrace, where the magnet was first found; see Sedley 1998, 52–3 for *Samothracia ferrea* and for an alternative explanation of the Samothracian connection (the city of Heracleia does not seem to have existed). It is certain that Epicureans were familiar with the use of both terms to refer to magnets: see Phld. *Sign.* col. 1.26–8 De Lacy and De Lacy: τὸν σίδηρον, ἣν καλοῦσιν μα[γ]νήτιν λίθον, οἱ δ’ *Ἡρακλε[ώτιν]* (‘the iron which they call the magnesian stone, and others the Heracleian’). The most important Greek source for Epicurus’ attitudes to magnetism is Galen *De Nat. Fac.* 2.45 Kühn (= Usener 293), where the term ‘Heracleian stone’ is used; see Sedley 1998, 72 n. 51 for similarities between that passage and the account given by Lucretius.

amor:

sic igitur Veneris qui telis accipit ictus,
 sive puer membris muliebribus hunc iaculatur
 seu mulier toto iactans e corpore amorem,
 unde feritur, eo tendit gestitque coire 4.1055
 et iacere umorem in corpus de corpore ductum;
 namque voluptatem praesagit muta cupido.
 haec Venus est nobis; hinc autemst nomen amoris.

So, then, one who receives wounds from the shafts of Venus, whether a boy with girlish limbs has struck him, or a woman casting out love from her whole body, tends toward that by which he was struck, and seeks to join with it, and to cast liquid, drawn out from his own body, into that of another; for mute desire gives a foretaste of pleasure. This is Venus for us; from here comes the name of love (*amor*)

The details of the derivation are not spelled out.³⁰ The phrase *hinc autemst nomen Amoris* is understood by Munro and others (Bailey 1947, Rouse and Smith 1992, Marković 2008, 118) to refer back to *cupido* in 1057, and so to explain the name of the god *Cupido* as a personified form of the common noun. Such an explanation is awkward in at least two ways: first, *nomen amoris* is an unsuitable and ambiguous designation for the god Cupid, who is by no means identical to Amor (see Brown 1987, 201–2); second, it seems unnatural for *hinc* to refer back to only a single element of the clause immediately preceding line 1058. A more convincing explanation is given by Friedländer (1941, 18): *hinc* in fact looks back to the *umor* which was the topic of the preceding section and which is last mentioned in 1056, so that the word for love is derived from the word for the liquid produced by erotic desire.³¹ This is the only one of the four explicit derivations under consideration not to include a Greek source word; rather, the word was formed from a pre-existing word in the same language, with the change of a single letter.³²

Considering these explicit etymologies together may tell us three things. First, and most obviously, these passages indicate that Lucretius is committed to a model of language development which goes

³⁰ See here esp. the analysis of Shearin 2015, 125–7.

³¹ *hinc* referring to etymological sources is found in Varro, *De Lingua Latina* Books 5 and 6 very regularly; see also Virgil A. 10.145: *Capys: hinc nomen Campanae ducitur urbi* with Harrison 1991 ad loc.; further examples at OLD s.v. *hinc* 7b.

³² Compare Varro, *L.* 5.6 on *litterarum commutatio* as a type of etymological change, and see further Marković 2008, 118.

beyond the natural emergence of words during the first stage. These etymologies, I have argued, involve the formation of new words (secondary names, in the parlance of the *Cratylus*), deliberately and according to reason. The result is a set of diachronic relations between words (i.e. derivations). Snyder is mistaken, therefore, to claim that *λογισμός* has no role to play in the Lucretian account of language development. Second, Lucretius anticipates a reader with a degree of ability in etymologizing, or at least of familiarity with etymological conventions.³³ Hence the two passages (on *Avernus* and *prester*) which do not make the etymology explicit: readers are expected to work it out for themselves. Finally, the *prester* passage (as well as the *Avernus* passage, if we select the etymology from *ἄορνος*), make it clear that Lucretius anticipates a reader familiar with the Greek language, to the extent that he or she can recognize *πρήθω* as a potential etymology of *prester* and *avibus contraria* as a calque of *ἄορνος*. The presence of explicit etymologies such as these invites us to look for implicit etymologies, which will be the focus of Sections 4.4–4.6.

4.4. IMPLICIT ETYMOLOGIES IN LUCRETIUS

All wordplay, in the intellectual climate of Rome in the mid-first century BC, is potentially etymological.³⁴ The presence of explicit etymologies in *DRN*, together with the regular juxtaposition elsewhere in the poem of words which in ancient etymological scholarship were held to be connected, should encourage us to see wordplay in *DRN* as being open to etymological interpretation, as Lucretius lays out for the reader evidence of lexical change and development over time. The majority of implicit etymologies under discussion in this

³³ Which does not, however, imply that a reader would have to already be familiar with specific etymological pairings. Compare Cairns 1979, 95: 'An ancient reader could have followed Tibullus' etymologizing without necessarily knowing that a professional etymologist had made a specific link between two words. Poetic etymologizing is thus revealed as a process demanding active involvement of the reader.'

³⁴ For etymologies in Virgil's *Aeneid*, see esp. O'Hara 2017, which also contains a wealth of information about etymologizing in other texts and poets; for Ovid's *Metamorphoses*, see Michalopoulos 2001; for Tibullus, see Cairns 1979 (esp. 90–7) and 1996. For the method and limitations of etymological interpretation, see Maltby 1993.

section suggest connections between words which are also paired together in the explicit etymologies of Varro, Festus, and others.³⁵ The significance of this overlap between Lucretian wordplay and the Roman etymological tradition will be addressed at the end of the section.

The examples under discussion here are necessarily select. Lucretian etymological wordplay could easily sustain a book-length treatment of its own, along the lines of O'Hara on Virgil or Michalopoulos on Ovid's *Metamorphoses*. For the most part I select examples of etymological wordplay that have not already been discussed widely or in depth by other critics; accordingly, I do not discuss such famous examples as the complex etymological play on *Venus* that opens the poem.³⁶ My primary concern is to demonstrate how Lucretius' implicit etymologies can be read as derivations, demonstrating via juxtaposition the rational historical development of the Latin lexicon.

mens/metuo/moveo:

Varro explains *metuo* as follows:

hinc etiam metuo a mente quodam modo mota³⁷ L. 6.45

hence also *metuo* [I fear], from a *mens* [mind] somehow *mota* [moved]

metuere a quodam motu animi, cum id quod malum casurum putat refugit mens. L. 6.48

metuere [to fear] comes from a certain *motus* [movement] of the mind, when the *mens* [mind] flees from that evil which it thinks may befall it.

Twice in Lucretius we find wordplay on the three words *metus*, *mens*, and *mota*:

verum ubi vementi magis est commota metu mens 3.152³⁸
but when the mind is moved by a more intense fear

mensque fruatur 2.18
iucundo sensu cura semota metuque?
and the mind enjoys a pleasant sensation, removed from care and fear

³⁵ Here I am indebted to the invaluable Maltby 1991.

³⁶ On which, see esp. Hinds 2006; Maltby 2014, 363–70.

³⁷ *metuo a mente quodam modo mota Canal* : *metuo mentem quodam modo motam codd.*

³⁸ Contrast Dionigi (1988, 67), who sees an implied etymological connection between *vemens* and *mens* in this line.

The similarity with Varro is striking, and may be explained in various ways: as coincidence, as Varro drawing on Lucretius (whom, however, he never mentions as a source), or as both authors drawing on a common etymological source unmentioned by Varro in *De Lingua Latina*.³⁹ In any case, the presence of the etymology in Varro confirms that a connection between these words was not deemed implausible according to the standards of linguistic science in the mid-first century BC. One thing that is clear in Varro but quite unclear in Lucretius is the question of direction: if Lucretius is indeed asking his reader here to consider a derivational connection between these words, no help is given as to what derives from what. If readers choose to interpret this wordplay as indicating a relationship of derivation, figuring out the direction of that derivation is left up to them; this is a common feature of implicit etymology in Latin poetry.

There are, however, many examples of implicit etymology in Lucretius where an implied direction of derivation is easier to discern. The most obvious involve compound and prefixed forms, to be discussed at some length below (pp. 140–5). Abstract nouns formed from verbs offer another obvious direction of derivation:

cultura:

inde aliam atque aliam culturam dulcis agelli 5.1367
 temptabant, fructusque feros mansuescere terra
 cernebant indulgendo blandeque colendo.⁴⁰

Then they attempted one way after another of cultivating their charming plot of land, and perceived that wild fruits grow tame in the earth with tender treatment and soothing cultivation.

³⁹ For the possibility that Lucretius knew the etymological work of the early first-century BC grammarian Aemilius Opillus, see p. 145. Lucretius may also have been aware of the work of the Republican grammarian Aelius Stilo, teacher of Cicero and Varro (Cic. *Brut.* 205, 207; Gell. 16.8.2), a large proportion of whose fragments (5–46 Funaioli) are etymological: at *DRN* 1.805–6, 2.32–3, 6.375–6 and 489–91 we find wordplay on *tempestas* and *tempus*, two words which we know to have been connected in Aelius' etymologies. The etymology is made explicitly by Varro at *L.* 7.72 (discussing Accius *praet.* 41 R³ = 675 Dangel): *intempesta nox dicta ab tempestate, tempestas ab tempore*, but it is clear from 6.7 (on the same line of Accius) that Aelius had already connected *tempestas* to *tempus*: *intempestat Aelius dicebat cum tempus agendi est nullum* (= fr. 10 Funaioli).

⁴⁰ For the etymology, see also Isid. *Orig.* 17.2.1: *cultura est qua frumenta vel vina magno labore quaeruntur, ab incolendo vocata*.

Here, in a passage describing the development of agricultural technology, we find implicit histories for both the word *cultura*⁴¹ and the agricultural usage of *colo* ('cultivate'). The phrase *indulgendo blandeque colendo* connects the agricultural usage of *colo* (encountered here for the first time in the poem) with the usage of the same verb in the sense 'nurture' or 'care for' (for which sense elsewhere in *DRN*, see 4.1260: *atque in eo refert quo victu vita colatur*).⁴² The implicit suggestion is that the agricultural sense of 'colo' developed from an idea of farming as the nurture of the land. Once the range of *colo* has been extended in this way, a noun, *cultura*, can be coined from its future participle in order to refer to the new practical science of agriculture whose invention is narrated in this passage. So we have here examples of both the metaphorical extension of existing terms in order to deal with new cultural or technological developments (*colo* 'nurture' is extended to *colo* 'cultivate'), and the formation of new words on the basis of existing terms, carried out for the same reason (*cultura* coined from *colo*). Into his narration of the history of culture, then, Lucretius embeds a metanarrative concerning the history of the language: *colo* 'nurture' > *colo* 'farm' > *cultura* 'farming'.

fistula:

Another 'technological' etymology may be hinted at in the following line:

fistula silvestrem ne cesset *fundere* musam 4.589
that the pipe should not stop pouring out woodland music

With which compare:

fistula a qua *fusus* aquae Varro, *L.* 5.123.
a *fistula* [pipe] is that from which there is a *fusus aquae* [pouring of water]

Fistula in Varro means water pipe, while here in Lucretius it means musical pipe (i.e. reed pipe), but the similarity is clear and once again Varro confirms the plausibility of such a connection from a mid-first-century BC Roman perspective. Reeds are naturally occurring objects, useful for humans for their musical function; the line, then, may be

⁴¹ Whose connection to *agelli* (the diminutive indicating the small scale of early attempts at farming) hints at the technical term *agri cultura*.

⁴² For the (etymological?) juxtaposition *victu vita*, cf. *Isid. Orig.* 20.2.1.

read as implying an etymology for *fistula* derived not from the natural function of the reed but rather from its conventional and artificial use by humans.

4.5. IMPLICIT ETYMOLOGIES INVOLVING GREEK

The Epicurean theory of the emergence and development of language at *Ep. Hdt.* 75–6, although it allows for the separate development of different languages, does not consider the possibility of later interaction and influence between different languages as they develop. While this is unsurprising in Epicurus' Greek context, things are quite different in that of Lucretius in the first century BC, with its acute awareness of Rome's debts, both cultural and linguistic, to Greece. We find in *DRN* a number of implicit derivations involving Greek words. Already in 1941, Paul Friedländer identified the bilingual wordplay on the Greek loanword *Curetes* (< *Κουρήτες*) at 2.633–7 (where *puer* = *κοῦρος*).⁴³ Likewise both O'Hara (2017, 144–5) and Michalopoulos (2001, 158) have pointed out the etymology of *Scylla* at 5.892–3, where Lucretius brings new life to a very old etymology of that name by juxtaposing it with a Latin rendering (*canibus*) of the Greek word (σκύλαξ) from which, as Homer implies and Callimachus says outright,⁴⁴ *Scylla's* name was derived (an implicit etymology imitated by Virgil at *A.* 3.342). There follow three further examples.

aether:⁴⁵

seorsus item puri secretique aetheris ignes

5.448

and likewise the fires of aether, pure and set apart

⁴³ For discussion, see Friedländer 1941, 21; Snyder 1980, 96; Gale 1994, 28; O'Hara 2017, 34, 55, 94, 284; Marković 2008, 112–13; Maltby 2014, 361–2. Aratus (*Phaen.* 32) and Callimachus (*Hymn.* 1.52–4, to which Lucretius' phrasing in this passage is indebted: see Brown 1982, 86–7) both hint at an etymological connection between the Curetes and the verb *κουρίζω*. The mention of *Creta* at *DRN* 2.634 may hint at an alternative, toponymic etymology: see O'Hara 2017, 284.

⁴⁴ Hom. *Od.* 12.85–7, with ancient grammatical comment quoted by Peirano (2009, n. 14); Call. *Hec.* fr. 90.1 Hollis (note, however, that this concerns the *other* Scylla). For the deep history of the etymology, see Peirano 2009, discussing Virgil, *Ecl.* 6.74–7.

⁴⁵ For a related set of etymologies at 1.722–5, 6.639–45 and 665–72 (*Aetna* < *αἰθέρων*), see Victor et al. 2014, 112–14.

⁴⁷ For a comparison of the Anaxagorean account with that of Empedocles (to which the Lucretian passage also appears to owe something: see B27 and B37 DK, with Bailey 1947, 3.1381–2), see Schofield 1980, 44–6.

etesiae:

anni tempore eo qui etesiae esse feruntur 6.716

which at that time of year are called ‘etesian winds’

with which compare Hyginus, *Astronomica* 2.4.6 Le Boeffle (= 2.218–20 Viré):

nonnulli etesias dixerunt, quod quotannis certo tempore exoriuntur:
 ἔτος⁴⁸ enim Graece annus est Latine.

Some have called them ‘etesian’, because they arise every year at a fixed season; for ἔτος in Greek is *annus* in Latin.

A fragment of Nigidius Figulus preserved by Gellius (2.22.30 = fr. 104 Swoboda) suggests that this etymology may have been present in his *de vento*: *P. enim Nigidii in secundo librorum, quos de vento composuit, verba haec sunt: et ἐτησίαι et austri anniversarii secundo sole flant*, ‘for in the second of the books Publius Nigidius composed *On Wind* are these words: “both the etesian winds and the annual south winds blow according to the course of the sun”’.⁴⁹ *Etesius* as an adjective with the sense ‘annual’ (a Greek loanword extant only in Lucretius: *OLD* s.v. 1) appears in the phrase *etesia flabra Aquilonum* at *DRN* 5.742 and 6.730.

letum:

In 2014, Benjamin Victor and co-authors identified an implicit etymology for *letum* at *DRN* 3.79–82.⁵⁰

et saepe usque adeo mortis formidine vitae
 percipit humanos odium lucisque videndae,
 ut sibi consciscant maerenti pectore letum
obliti fontem curarum hunc esse timorem.

And often it goes so far that, with fear of death, hatred of life and of seeing the light takes hold of men, so that with sorrowful heart they bring death (*letum*) upon themselves, forgetting (*obliti*) that this fear is the origin of their troubles.

Letum is poetic and of elevated register,⁵¹ which is appropriate in the light of the Ennian *Acherusia templa* that will appear four lines

⁴⁸ ἔτος Bunte : henia(u)(c)tos *codd.*

⁴⁹ For the influence of Nigidius on Hyginus, see le Boeffle 1983, xvii–xviii.

⁵⁰ 2014, 116–17. ⁵¹ See Waszink 1966 and Jocelyn 1967, 256.

later at 3.86.⁵² With the juxtaposition *letum* | *obliti* at 81–2 we may compare:

‘ollus leto datus est’,⁵³ quod Graecus dicit λήθη, id est oblivioni.

Varro, *L.* 7.42

‘he is given over to death’, which the Greeks call λήθη, that is, *oblivio* [forgetting].

letum ab oblivione, quam Graeci λήθην vocant, dictum.

Paul. Fest. 102.19 Lindsay

letum is named from *oblivio*, which the Greeks call λήθη.

The same etymology is implicit at 3.670–8.⁵⁴

praeterea si immortalis natura animai	3.670
constat et in corpus nascentibus insinuat,	
cur super antectam aetatem meminisse nequimus	
nec vestigia gestarum rerum ulla tenemus?	
nam si tanto operest animi mutata potestas,	
omnis ut <u>actarum exciderit retinentia rerum</u> ,	675
non, ut opinor, id ab <u>leto</u> iam longius errat;	
quapropter fateare necessest quae fuit ante	
interiisse et quae nunc est nunc esse creatam.	

Moreover, if the nature of the soul is immortal, and creeps into the body as we are being born, why can we neither recall the life we lived before nor retain any traces of the things we did? For if the power of the mind has been changed so greatly that all recollection of things done has fallen away, that, I think, is not far from death; on which account, you must confess that the soul that existed before has died, and that which exists now was created.

Here, in his seventeenth proof of the mortality of the soul, Lucretius uses the fact that we cannot recall events from before our birth as

⁵² See Enn. *trag.* 98 Jocelyn (from *Andromache*): *Acherusia templa alta Orci salvete infera* (= Varro, *L.* 5.19), and the unidentified tragic fragment transmitted by Cicero at *Tusc.* 1.48: *Acherunsia templa alta Orci pallida leti nubila*, with the discussion of Jocelyn 1967, 255–6. That Lucretius identified this as a specifically Ennian phrase is made clear by *DRN* 1.120–1: *Acherusia templa* | *Ennius aeternis exponit versibus edens*.

⁵³ This phrase, which the immediate context in Varro suggests is sacral (*in funeribus indictivis*), is found in Lucretius at 5.1007–8; see also Enn. *trag.* 283 Jocelyn and Pacuvius *trag.* 148 R³ (= fr. 104 Schierl).

⁵⁴ Here we may also compare 3.828–9: *adde furem animi proprium atque obliviam rerum, | adde quod in nigras lethargi mergitur undas*, cited in a list of implicit etymologies by Dionigi 1988, 68.

proof that our souls were created and did not pre-exist our bodies. In this case, rather than loss of memory bringing death about, the absence of memory is taken to be equivalent (or nearly equivalent—*non longius errat*) to death itself.

For a further connection between death and memory loss we may look to 3.847–60, one of the most daring and conceptually dizzying arguments in the poem:

nec, si materiem nostram collegerit aetas
 post obitum rursumque redegerit ut sita nunc est,
 atque iterum nobis fuerint data lumina vitae,
 pertineat quicquam tamen ad nos id quoque factum, 3.850
interrupta semel cum sit repetentia nostri.
 et nunc nil ad nos de nobis attinet, ante
 qui fuimus, neque iam de illis nos adficit angor.
 nam cum respicias inmensi temporis omne
 praeteritum spatium, tum motus materiai 855
 multimodi quam sint, facile hoc adcredere possis,
 semina saepe in eodem, ut nunc sunt, ordine posta
 haec eadem, quibus e nunc nos sumus, ante fuisse.
nec memori tamen id quimus reprehendere mente;
 inter enim ictast vitae pausa vageque 860
 deerrarunt passim motus ab sensibus omnes.

Nor, if time should gather together our matter after death and return it again to how it is now placed, and again the light of life should be given to us, would it yet concern us at all even that this had been done—when the recollection of ourselves had once been broken in two. And now the selves we once were matter to us not at all, nor do we now feel any pain concerning them. For when you look back across the whole past stretch of immeasurable time, and consider how many and varied are the motions of matter, you may easily believe this too, that the very same seeds of which we are now composed have often been placed in the same order that they are now in. Yet we cannot recall it in our mind's memory; for a pause of life has been placed between, and all the motions have wandered dispersed here and there, away from our senses.

Lucretius invites us to imagine that the same atoms that currently constitute our bodies will be rearranged, sometime after our deaths, in precisely the same configuration that they are now in. At 3.854–61, he makes it clear that this is no mere thought experiment: given the Epicurean belief in an infinite stretch of time back into the past, we can say with certainty that the atoms that now constitute our

bodies once stood, long before our births, in precisely the same configurations they are now in. For an Epicurean at pains to prove that we have nothing to fear in death, this presents a problem: death, on such a model, risks being seen not as a permanent state of non-existence, but instead merely as a time-limited gap between different instantiations of oneself. How, then, can death be nothing to us?

In responding to this potential problem Lucretius insists that, because upon death all memory is lost (as evidenced by the fact that we cannot now recall any of our past instantiations), even this process of post-mortem reconstitution will be nothing to us; the interruption of memory brought about by death ensures that there can be no psychological continuity between different instantiations of ourselves.⁵⁵ A necessary part of death, then, is a total loss of memory, and we may recall here the similar argument and phrasing of 3.675–6 *omnis ut actarum exciderit retinentia rerum, | non, ut opinor, id ab leto iam longius errat*. A link between *letum* and *λήθη*, already intimated via etymological play earlier in Book 3, turns out to be of central importance to Lucretius' later arguments to the effect that death is nothing to us.⁵⁶ Implicit etymology encourages the reader to consider a potential derivational connection between two words; this paves the way for the assertion, later in the book, of a real conceptual connection between the referents of those words.

Once the passages under consideration in this section are recognized as implying diachronic relations between Greek and Latin words, it becomes clear that the model of linguistic development to which Lucretius subscribed involved an additional level of complexity compared to that found at *Ep. Hdt.* 75–6: not only was the first, natural stage of the emergence of language followed by intra-lingual developments within a given linguistic community, but different linguistic communities were later able to interact, with the result that contact between Greek and Latin produced a Latin lexicon which has roots both in its own past development and in the past development of

⁵⁵ On the details of the argument, and its possible ramifications for Lucretius' understanding of the self, see esp. Warren 2001.

⁵⁶ A further instance of this implicit etymology will be encountered at 3.1039–41, Lucretius' account of the death of Democritus: *denique Democritum postquam matura vetustas | admonuit memores motus languescere mentis, | sponte sua leto caput obviu obtulit ipse* ('again, after mature old age warned Democritus that the remembering motions of his mind were slipping, he went to meet death of his own accord, and offered up his head').

other languages, like Greek. As we shall see in Chapters 5 and 6, this is just one way in which the major Lucretian preoccupation with the relation of Latin to Greek can be discerned in the linguistic texture of *DRN*.

4.6. IMPLICIT ETYMOLOGIES FOR COMPOUNDS AND PREFIXED WORDS

Compound and prefixed words make up an important part of Epicurean technical vocabulary. They also account for a high proportion of Lucretian hapax legomena (at least some of which are likely to be Lucretius' own coinages): see, for example: *aboriscor* 5.733; *adopinor* 4.816 (a calque of the Greek προσδοξάζω, employed as a technical term by Lucretius, following Epicurus; see p. 189–90); *assugo* 4.1194; *concrucior* 3.148; *confervefacio* 6.353; *disserpo* 6.547; *egigno* 2.703; *praespargo* 5.739; *provomo* 6.447; *reconflo* 4.927.⁵⁷ Compounding/prefixing is an obvious potential element of the second, rational stage of linguistic development, especially as part of the creative activity of the *συνειδότες*.⁵⁸ It was recognized already in late antiquity that Lucretius engages in implicit etymologizing on Latin compounds: Servius on *Aeneid* 8.187 states that *secundum Lucretium superstitio est superstantium rerum, id est caelestium et divinarum, quae super nos stant, inanis et superfluous timor* ('according to Lucretius, superstition is the empty and pointless fear of things which stand above, i.e. of those divine and celestial things which stand over us'), alluding clearly to the characterization of *religio* at *DRN* 1.64–5 as she *quae caput a caeli regionibus ostendebat | horribili super aspectu mortalibus instans* ('who showed her head from the regions of heaven, standing over mortals with terrible countenance'). While *superstitio* is by no means impossible in hexameters, Lucretius does not use it in *DRN*; the use here of etymology via near-synonymy (~ *religio*)⁵⁹ enables him to (correctly)

⁵⁷ On Lucretian hapax legomena, see esp. Swanson 1962, 182–3.

⁵⁸ We saw in Section 4.1 above (p. 117) how, in *Cratylus*, the name-giver's creation of secondary names is conceived as an exercise involving compounding (*συντιθέναι*).

⁵⁹ Elsewhere in *DRN* *religio* itself is etymologized from *religare*: see Snyder 1980, 120 on 1.931–2 (= 4.6–7) and 5.114–16; Marković 2008, 116.

etymologize it, nevertheless, as a combination of *super* and *sto*.⁶⁰ In what follows I discuss a select number of implicit etymologies on compound and prefixed forms. Taken together, I suggest, these constitute further evidence for Lucretius' interest in the existence of diachronic relations between words, as well as in the nascent science of Latin etymology.

dementio:

At 3.463–4, the opening lines of the fourth proof of the mortality of the soul, Lucretius describes the delirium of those struck down by bodily sickness, whose minds wander from their established paths:

quin etiam morbis in corporis avius errat
saepe animus; dementit enim deliraque fatur.

Moreover, in cases of bodily disease the mind often wanders from its true path; for it is demented and speaks deliriously.

The etymology of *demens* (*de-mens*, 'out of one's mind') is stated explicitly in Paulus's excerpt of Festus:

demens, quod de sua mente decesserit Paul. Fest. 151.2 Lindsay.

'*demens*', because one departs from one's own *mens*

Lucretius suggests the etymology via a synonym (for synonymy of *mens* and *animus*, see 3.139: *consilium quod nos animum mentemque vocamus*).⁶¹ *Animus* must be understood as the subject of *dementit*, and therefore also of *fatur* at 464 and *exaudit* at 467: in this way it serves as a metonym for the patient himself.⁶² The wandering *animus*, then, is itself described, with no little irony, as being 'out of its mind'.⁶³

⁶⁰ See further Friedländer 1941, 19; Snyder 1980, 120; Ferguson 1987, 101; Maltby 2005, 105; Marković 2008, 115–16.

⁶¹ For etymologizing by synonymy, compare O'Hara's 'suppression' at 2017, 79–82.

⁶² Compare the tendency in Senecan tragedy for characters to refer to their *animus* when addressing themselves, a conceit already present in Pacuvius (*trag.* 284 R³ = fr. 211.1 Schierl): see Tarrant 1985 ad Sen. *Thy.* 192.

⁶³ *Avius errat* may also hint at an etymology of *avius* from a *via*, for which, see also *avius vagaris* at 2.82 and *adnotationes super Lucanum* 1.569 (p.33 Endt): *avia sunt, quae non habent viam*. Here we may contrast the implicit connection to *avis* suggested by synonymy at DRN 2.145 *volucres nemora avia pervolitantes* (cf. *Rhetorica ad Herennium* 4.29; Snyder 1980, 65–6; 117).

causidicus:

At 4.966, while describing the tendency to dream of one's own habitual and repeated pursuits, Lucretius treats of lawyers:

causidici causas agere et componere leges
advocates [dream of] pleading cases and *componere leges*

Here attention is drawn, via paronomasia,⁶⁴ to an etymology spelled out by Priscian (*Ars Grammatica* 17.151, GLK 3.182.8–9):⁶⁵

a causis et dicendo⁶⁶ 'causidicus'

Snyder (1980, 79) suggests plausibly that the *figura etymologica* here mimics the kind of rhetorical device the *causidici* dream of employing. *Causidici* are advocates, acting in defence of clients, and the phrase *causam dicere* is mostly used in defensive contexts. *Causam agere* has a slightly wider application than *causam dicere*, including both defensive and prosecutorial action (compare quotations at OLD s.v. *causa* 3a and 3b). As such, *causas agere* may be seen as a generalization of the kind of professional activity in which *causidici* are engaged. Alternatively, we may bear in mind the pejorative sense in which the word *causidicus* is normally used (for which, see Austin 1948 ad Quint. *Inst.* 12.1.25) and so see *causas agere et componere leges* as a humorous representation of the overblown self-importance of such men (so taking *componere leges* to mean 'compose laws' (OLD s.v. *compono* 8d), an activity far above the station of the *causidici*). Such an interpretation is made possible by 4.962: *et quo quisque fere studio devinctus adhaeret*: the content of dreams is affected not only by the daily activities of men (thus 963), but also by 'whatever pursuit each man clings to devotedly'. Some light humour would not be out of place in the passage: consider the dramatic metaphors used of sailors' dreams at 968—*nautae contractum cum ventis degere bellum*—and Lucretius' light-hearted self-portrait at 969–70.

⁶⁴ The example is briefly discussed by Snyder (1980, 79).

⁶⁵ See also *Ars* 1.33, GLK 2.26.1, with the comments of Biville et al. 2010, 237 n. 294.

⁶⁶ Or, perhaps preferably, given the context (a list of compounds formed *ex diversis casibus*): *a causas dicendo*. Hertz's text of the passage in question reads: *ex diversis quoque casibus solent derivativa simul et composita fieri, ut a medio terrae mediterraneus et a medio amnis Mediamna, a causis et dicendo causidicus, a vana loquendo vaniloquus et similia, quae ex simplicibus derivata simul et composita sunt*. Hertz reports *causas* as the reading of Monacensis lat. 280 a.

quaero:

The self-portrait at 4.969–70 contains an implicit etymology of its own:

nos agere hoc autem et naturam quaerere rerum
semper et inventam patriis exponere chartis. 4.970

I seem to pursue this task, always seeking after the nature of things, and to set down what I have found on pages written in my mother tongue.

Such is Lucretius' devotion to his poetry that (when not working through the night) he dreams of the process of composition. The phrase *naturam quaerere rerum* points to the title of his poem, with word order mimetic of the argument: the habitual, repetitious nature of his task—which leads to its appearance in his dreams—is captured neatly by the sequence *rererē*. A glance at the contemporary etymological tradition provides an additional level of significance: while *quaerere* is not in fact a compound verb, it was considered by Varro (L. 6.79) so to be: *ipsum quaerere ab eo quod quae res ut recipetur datur opera* ('*quaerere* itself is named from the fact that effort is expended to see that *quae res* be got back'). An etymological link, then, is implied between the act of philosophical inquiry (*quaerere*) and its subject matter (*res*).

procudo:

At 5.1264–6 Lucretius describes the discovery that metals can be melted and shaped:

et prorsum quamvis in acuta ac tenuia posse
mucronum duci fastigia procudendo, 1265
ut sibi tela parent, silvasque ut caedere possint.

and [they realized] moreover that [metals] could be fashioned, by beating, into the finest and sharpest points, that they might provide themselves with weapons, and that they might be able to cut down trees.

With which we may compare Paul. Fest. 69.20 Lindsay:

excudere, procudere et incudis ipsa a caedendo dicta sunt
excudere ['to hammer out'], *procudere* ['to forge'], and *incudis* ['of the anvil'] itself are named from *caedendo* [striking]

The spondeiazon created by the quadrisyllabic ending *procudendo* at DRN 5.1265 imitates the steady, deliberate hammering of the

forge,⁶⁷ and is then echoed in the same metrical *sedes* in the following line by its alleged etymon *caedere*.

incestus:

Wordplay on forms with the privative prefix *in-* is common in Lucretius,⁶⁸ and can be compared to bilingual etymologies involving the Greek privative alpha (see above Section 4.3 at pp. 125–7, on *Avernus*). A clear example⁶⁹ is found at 1.98–9:

sed casta inceste nubendi tempore in ipso 1.98
hostia concideret mactatu maesta parentis

but at the very age of wedlock a victim pure impurely should fall, sorrowful,
slain by her father's hand

with which we may compare Marius Victorinus, *Ars Grammatica*, GLK 6.10.7–8:

sic et castus facit incestum, non incastum
thus too 'castus' [chaste] produces 'incestus', not 'incastus'

The derivation is highlighted by paronomasia (as with *causidicus/causa* above) and elision. The purpose of such play in *DRN* is the creation of stark, even shocking comparisons (so *incestus/castus*; *inhumatus/humus*), deliberately absurd scenarios and paradoxes (*innumero numero*; *immortalis mortalia*, part of a *reductio ad absurdum*: cf. 3.777 *deridiculum esse videtur*), or the clarification of important conceptual distinctions in an argument (*infinitus/finio*). A simple kind of systematicity in language (the possibility of creating new forms using privative prefixes) is thus exploited in such a way as to make clear the structural and causal relationships between diachronically related forms.

⁶⁷ Compare the similar effect (also with *ducere*) at *Aeneid* 7.634: *aut leuis ocreas lento ducunt argento*.

⁶⁸ To *incestus/casta* we might add: *innumerus* (/-*abilis*/-*alis*)/*numerus* (2.1054, 1086, 3.778–9, 6.485); *immortalis/mortalis* (3.778–9, 869 5.121); *impar/pars* (5.683–4); *impubes/pubesco* (5.673); *incultus/cultus* (1.208–9); *inermis/armatus* (5.1292; cf. *Isid. Orig.* 10.141); *infinitus/finio* (1.1010–11); *inhumatus/humus* (6.1215); *iniquus/aequus* (1.41–2; cf. *Paul. Fest.* 19.25 Lindsay); *insensilis/sensilis* (2.888); *intactus/tactus* (1.454).

⁶⁹ Discussed briefly at Snyder 1980, 79 and included in Maltby's catalogue of etymologies in *DRN* Book 1 (2005, 105).

necesse:

At 2.80–5 Lucretius argues that the motion of atoms is both unceasing and necessitated. The passage features wordplay on *cessare* and *necesse*, together with *vagari*:

si cessare putas rerum primordia posse 2.80
cessandoque novos rerum progignere motus,
 avius a vera longe ratione vagaris.
 nam quoniam per inane vagantur, cuncta necessest
 aut gravitate sua ferri primordia rerum
 aut ictu forte alterius. 85

If you think that the first-beginnings of things can be still, and in being still can generate new movements in things, you wander, straying far from true reasoning. For since they wander through the void, it is necessary that all the first-beginnings of things are moved along either by their own weight or by a chance blow struck by another.

Festus (158.19–20 Lindsay) reports that Aurelius Opillus (= fr. 9 Funaioli) derived *necessarium* from the negation of *cessare*:⁷⁰

necessarium ait esse Opillus Aurelius, in quo non sit cessandum.

Aurelius Opillus says that the necessary is that in which there must be no ceasing.

In Lucretius, similar play may be identified at 6.921–7, where the unceasing (*nec cessant*) emission of sound particles at 927 picks up 922, where said emission is described as a necessary process (*necessest*).

4.7. CONCLUSION

My aim in this chapter has been to show that both the explicit and the implicit etymologies of *DRN* indicate the existence of diachronic relations—i.e. derivations—between words. This is fully in keeping

⁷⁰ For the freedman Aurelius Opillus, see Suet. *Gramm.* 6. He began his career teaching philosophy at Rome, before progressing first to rhetoric and then to grammar. The claim that he was an Epicurean (e.g. Rawson 1985, 124) has no firmer basis than Suetonius' testimony that his former owner was an Epicurean: *Epicurei cuiusdam libertus*. He enjoyed a close personal relationship with the Stoic P. Rutilius Rufus, whom he accompanied into exile in 94; it was while living with Rutilius at Smyrna that he wrote his philological works.

with the Epicurean account of language development, whose second stage featured the free and rational development of the lexicon. The majority of the implicit Lucretian etymologies under discussion here have been matched by explicit examples taken from the tradition of Roman etymology, and a good number of those examples are found in the texts of writers who are roughly contemporaneous with (and some even prior to) Lucretius. So, while the presence of etymologies suggesting derivation in *DRN* is fully compatible with the Epicurean account of language history, the precise nature of those etymologies demonstrates a strong affinity with, and possibly also a causal relationship to, the techniques and theories of the nascent Roman science of etymology.

In Section 3.5 it was argued that Lucretius, via the trope of *diaphora*, sought to lay out on the pages of *DRN* evidence of linguistic change, confronting the reader with older and newer usages. With this we may now compare his practice of implicit etymology, which offers up for the reader evidence of the historical development of the Latin lexicon, and allows readers to trace for themselves the rationally determined, diachronic connections between the different words they encounter in the text. Reading the text of *DRN* thus becomes a lesson in language history, as words belonging to different historical strata of the language are placed side by side.

The Uses of Greek

Lucretius' interest in the connections between certain Greek and Latin words, as discussed in Sections 4.3 and 4.5, marks a departure from what we know of Epicurean language theory, which does not seem to have engaged with the linguistic issues raised by language contact. Lucretius' interactions with the Greek language will be the subject of this chapter and Chapter 6, as we move away from the linguistic thought of Epicurus and onto a topic with which, as was discussed in the Introduction to this book, Roman philosophical writers were deeply concerned. The linguistic creativity of *DRN* was not bounded by the limits of the Latin language, but extended to include the uses and abuses of Greek.

5.1. TMESIS

Sedley has emphasized that many instances of Lucretian tmesis have a mimetic function, whereby the separation of the elements of a word serves to imitate and illustrate a point made in the text, whether it relates to the containment of one thing in another, the mixture of different things together, or the separation of bodies one from another.¹ Here are a selection of such examples:²

¹ A symbolic function which Sedley, using West's terminology (1975, 96), calls 'syntactic onomatopoeia'.

² A list of such 'onomatopoeic' examples can be found at Sedley 1998, 48 nn. 44, 45. A full list of examples of Lucretian tmesis is given by Munro 1886 ad 1.452.

containment:

aera qui inter se cumque est oculosque locatus 4.247

Whatever air is placed between it and our eyes

volvitur in flammis innoxius inque peditur
turbine³ 6.395

innocent, he is rolled in flames and encircled in a tornado

mixture:

sed complexa meant inter se conque globata 2.154

but they move, linked and massed together among themselves

aut magis hamatis inter se perque plicatis 2.394

or more hooked and thoroughly entangled among themselves

separation:

languidior porro disiectis disque supatis 1.651

more faint, with particles scattered and dispersed

instant, nec loca lux inter quasi rupta relinquit 5.299

they go on, nor does the light, as if broken apart, leave the place

In order to explain the presence of this kind of mimetic tmesis in *DRN* we must first dig through several different literary and linguistic strata. First, there is precedent for tmesis in early Latin dactylic poetry: there are a small number of examples in the fragments of Ennius' *Annales*,⁴ while Ausonius (*Epistle to Theon*, 27.15.38 Green) states that Lucilius was especially fond of the figure.⁵ The examples that survive from Lucilius⁶ all involve tmesis around clitic *que*, a pattern also often found in Lucretius. There is not much that is obviously mimetic in the surviving Lucilian and Ennian examples,⁷ but the single

³ This example is particularly striking in that the separation of the prefix leaves behind a form (*peditur*) that does not exist as a stand-alone verb in Latin; see Wackernagel 1920–4, 2.171–2 (= 2009, 613), who gathers three further examples from Lucretius: *seque gregari*, 1.452 (on which, see the ingenious discussion of Hinds 1987); *inter quaecumque pretantur*, 4.832; *conque gregantur*, 6.456.

⁴ 371 Sk. *de me hortatur*, perhaps 376 Sk., and (if real) the infamous *saxo cere comminuit brum* (*spuria* 5 Sk., defended by Zetzel (1974) with reference to Call. *Hec. fr.* 34 Hollis and the scholia to *Iliad* 4.235). Haug (2012, 98) sees *saxo cere comminuit brum* as 'the end point of the evolution' of archaic Latin tmesis.

⁵ See also Consentius, *De Barbarismis et Metaplasms*, GLK 5.390.33–391.2.

⁶ Chahoud (2018, 132–41) lists and discusses: 983 M *deque petigo*; 997 M *data deque dicata*; 1137 M *conque tubernalem*.

⁷ Chahoud (2018, 136) suggests on 983 M that 'the split compound mimics the meaning of the word *depetigo*, a disfiguring disease'.

extant instance⁸ in Plautus is more promising: at *Trinummus* 833 we find *distraxissent disque tulissent* ('they would have torn apart and separated'), which bears a clear similarity to *DRN* 1.651 *disiectis disque supatis* ('scattered and dispersed'),⁹ and has a mimetic quality, the separation of verb and prefix mimicking the meaning of *distulissent*.¹⁰

Going deeper, we also find (apparent¹¹) tmesis in the early Latin prayer formulae *ob vos sacro* (for *vos obsecro*) and *sub vos placo* (for *vos supplico*) preserved by Festus (206.17–18 Lindsay). The existence of such early examples has led commentators to describe Ennian tmesis as an archaism.¹² Given Lucretius' archaizing tendencies elsewhere, we may initially be tempted to draw the same conclusion for him. These very early examples, however, do not provide satisfactory parallels to the 'mimetic' practice we identified in Plautus and Lucretius. For such parallels we must look instead to Greek.

Tmesis is regularly encountered in Homer, Hesiod, and later dactylic Greek poetry (including Callimachus), and many such examples can be considered mimetic in function, along the same lines as the Plautine *distraxissent disque tulissent* and the numerous examples found in *DRN*. This mimetic function did not escape the Homeric scholiasts:¹³

ἵνα τάμῃ διὰ πᾶσαν

Il. 17.522

that he might cut straight through the sinew

ΣbT: τῇ δὲ διακοπῇ τῆς λέξεως μεμίμηται τὸ γινόμενον.

The action has been imitated by the cutting of the word

ὥς τίς λέων κατὰ ταῦρον ἐδηδώς

Il. 17.542

as a lion that has devoured a bull

⁸ Leo 1895, 420 (= 1960, 1.54).

⁹ See Fraenkel 1922, 209 (= 2007, 142); Leumann 1977, 562.

¹⁰ The context here is a prayer to Neptune in (parodic) high style, which opens up the possibility that Ennius is being parodied (Fraenkel, 1922, 209 = 2007, 141). If this is correct, we may postulate *DRN* 1.651 as an imitation of an Ennian original.

¹¹ Weiss 2009, 463 n. 60 suggests that these are 'truly pre-compositional forms and not secondary splitting of already formed compound words'.

¹² Skutsch 1985, 538; Wackernagel 1920–4, 2.175 (= 2009, 617) on 371 Sk.: 'Das war wohl schon für Ennius ein Archaismus'; cf. Lindsay 1894, 573. Leumann (1977, 562) emphasizes the similarity between Ennius 371 Sk. *de me hortatur* and the two prayer formulae in Festus (*ob vos sacro*, *sub vos placo*), all three examples featuring tmesis around a personal pronoun.

¹³ See citations at Skutsch 1985, 788 n. 3.

ΣΤ: ἡ διακοπή τῆς λέξεως τὸν εἰς πολλὰ διεσπασμένον παρέστησε ταῦρον,
οὐ τοῦ μέτρου ἀπαιτοῦντος·

The cutting of the word represents the bull being torn into many pieces;
it is not demanded by the metre.

Like that of Lucretius, Homeric tmesis can be mimetic of different dynamics in the text's content. To the anastrophic example of *Il.* 17.522, in which the separation of verb and prefix mimics the cleaving of the ox's head, we may add, e.g., *Il.* 13.394 (ἐκ δέ οἱ ἡνίοχος πλήγῃ φρένας, 'the charioteer was struck out of his wits') and *Od.* 4.198 (βαλέειν τ' ἀπὸ δάκρυ παρειῶν, 'to let a tear fall from the cheeks'). Conversely, Homeric tmesis of prefixed forms with *περι-* and *ἀμφι-* is often mimetic of a process of surrounding or enfolding; so, at *Il.* 5.310 tmesis of *ἀμφικαλύπτω* mimics the veiling of Aeneas' eyes by dark night: *ἀμφι* δὲ ὅσσε κελαινὴ νύξ ἐκάλυψε ('black night enfolded his eyes');¹⁴ likewise, at *Od.* 2.3 tmesis mimics Telemachus' girding of himself with a sword: *περὶ* δὲ ξίφος ὀξὺ θέτ' ὤμῳ ('he slung his sharp sword around his shoulder').¹⁵

The type of mimesis involved in these texts and recognized in the scholiasts quoted above is close to the creative 'syntactical onomatopoeia' found throughout Lucretius. It is not at all clear, then, that tmesis in *DRN* should be considered an echo of early Latin rather than an imitation of Homeric style; likewise, even if Plautus' symbolic tmesis at *Trinummus* 833 really does reflect Ennian practice, that Ennian practice must surely have been a Greek inheritance.¹⁶ In the case of Lucretius, we have such a functional disconnect between Lucretian mimetic tmesis and most of the early Latin evidence (excepting one example in Plautus), and so close a resemblance to the practice of Homer and later Greek hexameter poets, that much the simplest option is to conclude that Lucretian mimetic tmesis is a stylistic Graecism, probably inherited directly from the Greek texts.

¹⁴ The formula is reused of Hector at 11.356.

¹⁵ For a comparable example from tragedy, see Eur. *Tro.* 762–3. Mimetic tmesis of compounds with *περι-* would later become a stylistic feature of Callimachus (see *Hymn.* 3.240; 5.93, with Lapp 1965, 47–8).

¹⁶ For the controversy as to the origins of Ennian tmesis, see Weiss 2009, 464 and Penney 2011, 232. For Ennian tmesis as a Graecism, see Zetzel 1974.

5.2. GREEK SYNTAX

There are a number of passages in *DRN* which feature syntactic constructions showing the influence of Greek. Greek syntax of this sort may be rare in Lucretius,¹⁷ but it is there, and not merely by accident: in a number of instances its presence can be accounted for by context or by intertext. In an influential study of the influence of Greek syntax on the Latin language, Coleman (1975) stressed that syntactic features and use patterns usually identified as Graecisms in Latin can often be shown already to have existed within the native Latin grammatical system. This is not to deny the influence of Greek, but rather to suggest that contact between Latin and Greek led Latin speakers further to develop and exploit the native grammatical potential of their own language.¹⁸ As I will suggest later in this section, Lucretius often appears to follow this pattern; this is just one of the ways in which Lucretian archaism and Lucretian Graecism are connected.

At *DRN* 3.6–7 we find *quid enim contendat hirundo | cynis?* ('for why would a swallow compete with swans?'), a syntactic Graecism formed on analogy with Greek verbs of fighting which take the dative.¹⁹ There are Hellenistic parallels: at Callimachus, *Hecale* 260.56 Pf. (= 74.15 Hollis) we read *εὔτε κόραξ, ὅς νῦν γε καὶ ἂν κύκνοισιν ἐρίζοι* ('when the raven, who now might compete even with swans'),²⁰ and at Theocritus 5.136–7 (adduced by Heinze 1897, 49) we read *οὐ θεμιτόν, Λάκων, ποτ' ἀηδόνα κίσσας ἐρίσδειν, | οὐδ' ἔποπας κύκνοισι* ('it is not lawful, Lacon, for jays to compete against nightingales, nor hoopoes with swans'). The latter of these is perhaps the most significant: being located in an amoebaeon singing contest, the metaphor concerns the composition of poetry.²¹ This Graecism

¹⁷ Coleman 1971, 215; Reinhardt 2010, 211.

¹⁸ Compare the general linguistic observation of Ebert 1978, 16–17: 'Lehnsyntax kann auch qualitativ sein: eine an sich heimische Konstruktion wird unter dem Einfluß einer fremdsprachlichen Fügung häufiger gebraucht.'

¹⁹ Mayer 1999, 167–8, 174; Coleman 1975, 138. Servius ad A. 4.38 identifies *pugnabis amori* as 'Graecum', as does pseudo-Julius Rufinianus, *De Schematis Lexeos* 56.9–12 Halm ('figura Graeca').

²⁰ Brown (1982, 347) suggests that the same passage of Callimachus may have been in Lucretius' mind at *DRN* 2.822–5.

²¹ See also Theocr. 7.41 (on frogs competing with crickets), adduced here by Lambinus; see Donohue 1993, 6.

serves an immediate function in the text of *DRN*—the passage in question compares the Latin Lucretius with the Greek Epicurus.²² Here we can see a similar phenomenon to that identified above (pp. 11–12) in the case of the Callimachean *laborem* at 1.141: by adopting a poetic metaphor found in Greek texts, and relocating it to a Latin text concerned with the distinction between Greek and Latin, Lucretius succeeds in transforming the significance of the original text; what was a normal usage in Greek (*ἐρίζω* + dat.) becomes an imported Graecism in Latin (*contendo* + dat.), contributing to the metalinguistic commentary implicit in the passage.

Tremet artus ('he trembles in his limbs') at *DRN* 3.489 (cf. 6.1190 *tremere artus*) is identified by Coleman (1975, 126) as a Greek pattern, featuring as it does an accusative noun coupled with an intransitive verb which 'cannot be regarded semantically as a nominalization of the verbal state'.²³ Homer's *τρομέουσι δέ τε φρένα ναῦται* ('the sailors shudder in their heart', *Il.* 15.627, cited by Coleman) provides an obvious parallel, as does Euripides, *Medea* 1169 *τρέμουσα κῶλα* ('trembling in her legs', adduced by Courtney), but given the fact that both Lucretian instances of *tremere artus* appear in medical contexts (epilepsy at 3.489; plague at 6.1190), we may be tempted to look for parallels in Greek medical literature, where internal accusatives with intransitive verbs describing medical symptoms are very common.²⁴ Although I have found no exact syntactic parallels for *tremet artus* in the Hippocratic corpus, we do find *φρίσσειν* employed with an internal accusative at *Epidemics* 6.3.11: *φρίσσομεν γὰρ τὰ ἔξωθεν μᾶλλον ἢ τὰ ἐνδοθεν τοῦ σώματος* ('for we tremble in the outer parts rather than in the inner parts of our body'), which lends support to the idea that Lucretius' *tremet artus* may well have been calqued from a Greek medical original.²⁵ Even if there was no original text from which the expression was taken, Lucretius' employment of a

²² Sedley 1998, 58.

²³ See also Courtney 2004, 430: 'purely Greek'.

²⁴ So, e.g., Kühn and Fleischer 1986–9 s.v. *ἀλγέω*: 'subi. est homo (saepe c. acc. rel. partem dolentem indicante)'. Classical Latin examples of this accusative construction often involve parts of the body: for numerous examples, see the lists at Müller 1908, 115–6; Kühner and Stegmann 1912–14, 1.286; Courtney 2004.

²⁵ Shaking of the hands is indeed attested by Hippocrates (*Morb. Sacr.* 7.1 Jouanna) as a symptom of epilepsy (the condition under discussion at *DRN* 3.489, *tremet artus*). We find *τρέμω* + accusative at Galen *de Sympt. Caus.* 7.157.15–17 Kühn, on trembling of the legs induced by vertigo. For Lucretius' use of Hippocrates in his account of the plague, see Munro 1886 ad 6.1180–90; see further Clay 1983, 23–4.

Greek-sounding syntagm in two conspicuously medical contexts may be understood as an attempt to lend the authority of the specialist to his words.²⁶

To this Greek-inspired use of the accusative we may add the 'adverbial accusative' used at 5.33 of Ladon, who guards the apples of the Hesperides: *asper, acerba tuens* ('harsh, glaring fiercely').²⁷ The whole passage 5.22–38 is replete with Greek words, giving it an exotic feel which clearly motivates the inclusion of a syntactic Graecism.²⁸ Such adverbial uses of the accusative were certainly indigenous to Latin, but a few literary examples can be shown to have direct Greek precedents, thus implying the influence of Greek on the development of the native construction (Coleman 1975, 125–6).²⁹ The closest surviving parallel is Hesiod, *Scutum* 236, where the serpents on the belts of the Gorgons are ἄγρια δερκόμενω ('glaring wildly').³⁰

Another syntactic Graecism in Lucretius is the combination of a neuter plural adjective with a defining genitive, of the form *prima virorum* (1.86); *strata viarum* (1.315), etc.³¹ The appearance of the phrase *prima virorum* at 1.86 is, once again, suitable given the Greek context—the sacrifice of Iphianassa—and is matched by the Graecizing accusatives of the following line.³² Bailey (1947 ad 1.86) cites Hdt. 6.100 τὰ πρῶτα τῶν Ἐρετριέων ('the foremost of the Eretrians'), and Coleman (1975, 126) Hdt. 9.78 Αἰγενητέων . . . τὰ πρῶτα ('the foremost of the Aigenetans'), as Greek equivalents to *prima virorum*.³³ A further (and less prosaic) comparandum is provided by Theocritus

²⁶ For Greek as the 'professional language' of ancient doctors, see Adams 2003, 91 and esp. 217 n. 420 on the possibility that the use of Greek might have 'lent the doctor authority'; for the relationship between the Greek language and medical Latin, see esp. Langslow 2000, 28–41.

²⁷ For the neuter plural 'adverbial accusative' as a Graecism, see also Löfstedt 1956, 2.418–21; Hofmann and Szantyr 1965, 40; Norden 1957, 241.

²⁸ See further, pp. 161–2.

²⁹ Most famously Catullus' *dulce ridentem* at 51.5, translating Sappho's γαλαΐσας ἰμέροεν at fr. 31.5.

³⁰ Cited by Coleman (1975, 126) in relation to Virg. A. 6.467 *torva tuentem*, a phrase which, like 9.794 *acerba tuens*, surely derives from the Lucretian example. See also Hom. *Il.* 3.342 (cf. Hes. Sc. 160) δεινὸν δερκόμενοι.

³¹ Bailey 1947, 1.91–2 and ad 1.86; Coleman 1975, 126–7.

³² *cui simul infula virgineos circumdata comptus*, described by Jocelyn 1999, 181 as an 'unmistakably Greek pattern'.

³³ For further examples, see Kühner and Gerth 1890–1904, 2.1.63.

15.142, from a list of Greek heroes (including Agamemnon at 137): *Ἀργεὺς ἄκρα Πελασγοί* ('the Pelasgians, leaders of Argos').

Like several of the constructions described above, it is clear that Latin had an infinitive of purpose from the very early stages,³⁴ the most well-known example of which is the phrase *da bibere*.³⁵ Once again, however, it is clear that the Classical literary development and extension of this figure was carried out under the influence of Greek.³⁶ In Lucretius we find *dare* with an infinitive of purpose only twice, each time in a place where a Graecism would be contextually appropriate: at 3.1029–30 in the description of Xerxes: *per mare magnum | stravit iterque dedit legionibus ire per altum* ('he paved a road over the great sea and gave a path to his legions for to travel over the deep') and at 6.1227–8 on the vagaries of medicinal cures for the plague at Athens: *nam quod ali dederat vitalis aeris auras | volvere in ore licere et caeli templa tueri* ('for that which had given someone the power to draw the vital breezes of the air in his mouth and to look upon the regions of heaven'). Again, Greek subject matter is matched by the Greek feel of the syntax.

The history of the Latin construction of *habeo* + infinitive is long and complex;³⁷ in some cases, however, there is clear evidence of Greek influence.³⁸ I suggest that we may identify such Greek influence at *DRN* 6.711: *item in multis hoc rebus dicere habemus* ('likewise we can say this in many cases'). Reinhardt identifies this as a colloquialism, pointing out that it is 'an authorial comment addressed to the reader, where a slightly informal tone would not be surprising'.³⁹ Two similar passages in Epicurus, however, both of which employ

³⁴ As distinct from the same construction in later Latin, which developed under the influence of Greek: see Adams and Vincent 2016, 269–70.

³⁵ Kühner and Stegmann 1912–14, 1.681; Hofmann and Szantyr 1965, 345; Coleman 1975, 135–6.

³⁶ Serv. ad A. 1.319 considers *do* + infin. to be a *Graeca figura*; see also Skutsch (1985 ad *Ann.* 15) on *Aeneid* 10.701 (with Kroll 1924, 249).

³⁷ See Pinkster 2015, 436–40, with bibliography.

³⁸ See Cic. *N.D.* 1.63, quoting Protagoras, *de divis neque ut sint neque ut non sint habeo dicere*, which renders Protagoras' *περὶ μὲν θεῶν οὐκ ἔχω εἰδέναι οὐθ' ὥς εἰσὶν οὐθ' ὥς οὐκ εἰσὶν* (D.L. 9.51 = B4 DK), with Leumann 1962, 69. For the influence of the same construction in biblical Greek on the syntax of the *Vetus Latina* and Tertullian, see Pinkster 2015, 437.

³⁹ 2010, 211.

ἔχω + infinitive when appealing to the addressee, suggest that this usage was in fact calqued on that of the master himself:

καὶ μάλ' ὀρθῶς [γε, ὦ] Μητρόδωρε· πάνυ γὰρ οἰμαί σε πολλὰ ἂν ἔχειν
προε[ν]έγκασθαι... Nat. 28 fr. 13 col. 5.2–5 sup. Sedley

‘Quite so, Metrodorus. For I do not doubt that you could cite many cases...’ (Trans. Sedley 1973)

πρώτον μὲν οὖν τὰ ὑποτεταγμένα τοῖς φθόγοις, ὧς Ἡρόδοτε, δεῖ
εἰληφέναι, ὅπως ἂν τὰ δοξαζόμενα ἢ ζητούμενα ἢ ἀπορούμενα ἔχωμεν
εἰς ταῦτα ἀναγαγόντες ἐπικρίνειν. Ep. Hdt. 37.

First, then, Herodotus, we must grasp the things subordinated to words, so that we can refer to them when judging matters of opinion, inquiry, or difficulty.

The existence of such Epicurean examples of ἔχω + infinitive, I propose, lends credence to the notion that the syntax of DRN 6.711 was influenced by Greek.

Greek syntax in Lucretius often carries out specific poetic or rhetorical functions; it is not simply a matter of Lucretius’ language being influenced by his contact with Greek, but rather a matter of Lucretius adopting and extending certain patterns of word order or syntactic constructions, many of which were already present in his native tongue, on the basis of Greek examples. Lucretius, as a linguistically creative poet, plays an active, not a passive role in the introduction of Greek syntactic forms into the language of his poem, and this is surely one aspect of his creative response to the linguistic anxieties voiced at DRN 1.136–9. For example, *contendat hirundo | cycnis* at 3.6–7 not only recalls specific Hellenistic intertexts but, as a Greek-inspired syntagm, contributes to the metalinguistic (and meta-literary) commentary which underlies the passage: in the context of a discussion about his status relative to that of Epicurus, who is represented here with the Greek loanword *cycnus*, Lucretius seeks to convey the difficulty of mirroring Greek achievements in Latin by adopting a foreign syntactic structure with which to describe that difficulty.⁴⁰

I suggested earlier in this section that the employment of a Greek-inspired syntagm in specialist medical contexts may be seen

⁴⁰ See Sedley 1998, 58 with n. 75. See Fögen 2000, 70 for Greek texts connecting the song of the swallow (to which Lucretius compares himself) to barbarian languages, and Heinze 1897, 50: ‘ja vielleicht will L. damit seine φωνή βάρβαρος bescheidener Weise gegenüber der Stimme des *Graius homo* bezeichnen’.

as an aspect of Lucretius' self-presentation as an authority figure. A similar point may be made about *habeo* + infinitive at 6.711: elsewhere in the poem Lucretius is keen to align himself, as teacher and evangelist, with Epicurus; the employment at 6.711 of a Greek-inspired syntagm found in similar contexts in the texts of Epicurus himself may be seen as a continuation of this strategy: even if the Roman reader was unfamiliar with the Greek source text (as he almost certainly was, at least on the first reading), the unusual syntactic flavour will have served to cast Lucretius' role as philosopher and teacher in a particularly Greek light. The principal claims of this section—that Greek syntax in Lucretius has an important communicative function, contributes to meta-literary and metalinguistic commentary, flags Greek intertexts, and is controlled and developed by the creative poet himself—will all be encountered again in the next section.

5.3. GREEK WORDS

The starting point for any study of Greek words in *DRN* is Sedley's chapter, 'Two Languages, Two Worlds' (1998, 35–61).⁴¹ Sedley shows that the function of Greek words in *DRN* is often determined by the immediate context of the argument in which they appear, and that they often serve to evoke a particular aura or atmosphere (of, say, exoticism or foreignness) in order to add to the power of an argument. For example, the Greek words and names which fill 1.473–7—*Tyndaridis*, *Alexandri*, *Phrygio*, *durateus*, *Troiianis*, *Pergama*, *Graiiugenarum*—serve to create a distancing effect, removing the passage from the present day and locating it in the distant past. This serves an immediate purpose in the argument, concerning as it does the present status of facts about the past.⁴² My intention here is not to produce a full account of Lucretius' Greek lexicon, but rather to introduce some additional factors and distinctions which may help bring a further level of granularity to the study of Greek words in *DRN*.

Latin authors who sought to introduce Greek words and names into their texts were faced with a choice: either they could retain the original Greek terminations or they could use (or invent) forms with

⁴¹ With Sedley 1999.

⁴² Sedley 1998, 51; on the argument of the passage, see esp. Warren 2006.

Latin terminations. As regards names, this was an issue of some controversy among grammarians and stylists:

nunc recentiores instituerunt Graecis nominibus Graecas declinationes potius dare, quod tamen ipsum non semper fieri potest. mihi autem placet rationem Latinam sequi, quousque patitur decor. neque enim iam 'Calypsonem' dixerim ut 'Iunonem', quamquam secutus antiquos C. Caesar [*De Analogia* fr. 27 Garcea] utitur hac ratione declinandi; sed auctoritatem consuetudo superavit. in ceteris quae poterunt utroque modo non indecenter efferri, qui Graecam figuram sequi malet non Latine quidem sed tamen citra reprehensionem loquetur.

Quint. *Inst.* 1.5.63–4

Now more recent scholars have begun to give Greek declensions to Greek names, which is nevertheless not always possible. But I prefer to follow the Latin system, in so far as elegance allows it. For I would not now say 'Calypsonem', as I say 'Iunonem', although Caesar, following the practice of early writers, does decline it in this way; yet usage has superseded authority. As for those other names which can be produced in either manner without loss of elegance, he who prefers to follow the Greek form, while he will not be speaking Latin, will nevertheless speak without reproach.

This is part of a longer discussion (1.5.58–64) on the inflection of Greek names in Latin, an issue on which Varro also has much to say.⁴³ As Quintilian's *secutus antiquos* makes clear, using Greek names with Latin suffixes was seen as something of an archaism,⁴⁴ Caesar's aim being to return to this old practice of assimilating Greek words into Latin morphology. The antiquity of this practice is not hard to illustrate, and is confirmed by the testimony of later grammarians.⁴⁵

For a native Latin speaker, using a Greek word with its original Greek inflection is quite different, as a communicative act, from using a Greek word which has taken on a Latin suffix and thus been assimilated into the speaker's native language. Relevant here is the

⁴³ See Varro, *L.* 8.72 and 10.70, with Garcea 2012, 236; Dahlmann 1940, 168–70.

⁴⁴ Likewise for the stems of Greek names, which in early Latin literature were shaped on analogy with Latin forms, only later regaining their Greek prosody; see Varro, *L.* 10.70, comparing the Ennian *Hectōris* (100 Jocelyn) to the Accian *Hectōra* (fr. incert. xxxvi R³ = fr. incert. xxxii Dangel), with the discussion of de Melo 2019a ad loc.

⁴⁵ See Priscian, *Ars GLK* 2.209.14–210.13, with Garcea 2012, 237 and n. 288, who aptly compares the Elder Pliny, *Dubius Sermo* fr. 60 Mazzarino on the contemporary use of Greek accusative terminations.

distinction between borrowing and code-switching: borrowing occurs when a speaker uses a word from another language that has already become part of the vocabulary of the base language; code-switching occurs when a speaker uses linguistic forms from two different languages (a base language and an embedded language) within a single utterance.⁴⁶ For Adams (2003, 26), the question of whether or not foreign words retain their native morphology is ‘revealing in distinguishing a switch of codes from borrowing’.⁴⁷

The wholesale transfer of Greek forms into a Latin text involves assumptions about the linguistic expertise of one’s intended readership, and as such can be used as both an inclusive and an exclusive linguistic device, cementing ties within a Greek-speaking elite while alienating individuals without knowledge of Greek. It can also, as we shall see, be used as a device with which to emphasize the especially foreign or alien status of particular Greek objects and concepts. Conversely, employing Latin terminations can have the opposite effect.⁴⁸ Compared to the exclusive nature of Latin-to-Greek code-switches, borrowing of this sort can be viewed as an inclusive act, both culturally (by assimilating Greek words and concepts into the Latin linguistic system) and socially (by making room for Latin speakers with no knowledge of Greek morphology). This is not to say that employing a string of Greek loanwords with Latin terminations cannot also serve to emphasize the alien status of Greek objects and concepts (as is indeed the case at 1.473–7). Rather, it is to suggest that words which retain their original Greek terminations, introduced into a Latin text via code-switching, are inevitably more alien in sound and appearance than borrowed Greek words which have taken on

⁴⁶ See Adams 2003, 19, who collects and discusses further definitions.

⁴⁷ and *ibid.*: ‘If a Greek word is given a Greek inflection in a Latin text it is usually in my opinion justified to refer to the phenomenon as code-switching.’ The distinction can itself sometimes be insufficiently granular: even among Greek words which retain Greek inflection, some forms were no doubt more familiar to Greekless Latin speakers than others; third declension nominative plurals in *-ēs*, for example, were the norm for Greek words in Classical Latin poetry (Housman 1910, 261 [= 1972, 2.836]), and were surely comprehensible even to those readers with little knowledge of Greek. A genitive plural termination such as that in *Charitōn* (= *Χαρίτων*) at DRN 4.1162 would be a quite different matter.

⁴⁸ It is possible that Caesar’s insistence on using Latin morphology for Greek words was motivated by nationalist, as well as stylistic concerns: thus, Sinclair 1994 (but see the cogent criticisms of Willi 2010). On linguistic nationalism in Latin, see Adams 2003.

Latin suffixes. Exploring this distinction between preservation and assimilation, borrowing and code-switching, may enable us to bring an additional level of detail to the study of Greek words in *DRN*.

There are two important caveats here. The first is that we would be wrong to imagine that Latin poets had an entirely free hand when it came to selecting between Latin and Greek terminations for Greek words; Housman (1910 = 1972, 2.817–39) marshalled substantial evidence to suggest that for some forms, but not for others, Classical Latin poets followed fairly fixed rules in their inflection of Greek names. Some of the cases discussed below do not fall into the fixed categories considered by Housman; so, the choice between *Phaethonta* and *Phaethontem* is of a type classed by Housman as one ‘where different poets prefer different forms or the same poet employs now one and now another’ (1910, 248 = 1972, 2.825). Additionally, we may not wish to insist too rigidly on Lucretius’ inclusion among those poets for whom clear rules are established by Housman: Lucretius falls at the start of the period that Housman assesses, and we find, in fact, only a handful of citations of Lucretius among his many hundreds of pieces of evidence; some of those Lucretian citations in fact demonstrate exceptions (see, for instance, later in this section at pp. 163–4, on *panacēs*). Lucretius’ debts to poets of earlier generations, who demonstrated much greater freedom in some of these matters, should not be ignored here. The second caveat is that, as with many other optional forms in Latin poetry, metrical motives will sometimes have played a role in determining whether a Greek or a Latin form was used at a given point in the text (see DuBois 1935, 155). This, however, neither precludes the possibility that other motives may also have lain behind such choices, nor neuters the effect that particular forms would have had for Lucretius’ readers. Moreover, the existence of alternative forms or synonyms often means that Lucretius would not have been as constrained by the prosody of individual given forms as one might think (for examples, see later in this section on *panacēs*, pp. 163–4, and *lampada*, p. 160).

The creation of distance (temporal or spatial) is one basic function of Greek words in *DRN*. Sedley’s analysis of the effect of temporal distancing created by the use of Greek at 1.473–7, in the context of an argument concerning the existence of facts about the past, was mentioned earlier in this section. Two passages in the first half of Book 5 contain similar concatenations of Greek words. Both describe Greek myths (Phaethon, and the Labours of Hercules)

which have been connected in some way to physical or ethical truths. The effect of cultural and historical distance created by the clustering of Greek words in these passages contributes to Lucretius' attempts to distance himself from these uses of myth.

At 5.380–415 Lucretius mentions two mythical stories (Phaethon and Deucalion) which seem partially to confirm the Epicurean theory that the world will one day be destroyed by the eventual 'victory' of one element over all others.⁴⁹ Although the story of Phaethon is introduced as fact (*ignis enim superavit et ambiens multa perussit* 'for the fire overcame, and, going round, burned up many things', 396), it soon becomes clear that Lucretius is far from committed to its truth (*quod procul a vera nimis est ratione repulsum* 'which has been repelled too far back from true reasoning', 406).⁵⁰ In the account of the myth itself we find three Greek accusative singular forms: *Phaethonta* twice (396 and 400) and *lampada* at 402. DRN is the first extant text in which either of these forms appears. That a Classical Latin poet might use the accusative *Phaethontem* is confirmed by the metre at Manilius *Astronomica* 1.736: *Phaethontem patrio curru per signa volantem*. While *lampadem* is not used in Classical Latin poetry (although it is in Plautus, at *Casina* 840), a good synonym exists in the form of *facem*, used of the sun elsewhere by Lucretius (5.976), and a few years earlier by Cicero in Book 2 of *Consulatus Suus*.⁵¹ *Phaethonta* and *lampada*, then, are optional forms; Lucretius could have written otherwise, but chose to employ these particular Greek forms—forms which, to reiterate, we do not encounter in extant Latin before him.

The appearance of a Greek termination at 397 (*avia*⁵² *cum Phaethonta*) serves immediately to locate the (false) story within the mythical realm of ancient Greece, distancing it from the experience of the reader culturally, temporally, and geographically; this distancing effect is aided by the expression *ut fama est* at 395 and 412, as well as the 'sarcastic' (thus D. West 1969, 53) *scilicet* of 405. The unusual and

⁴⁹ See Gale 1994, 33–4.

⁵⁰ To this way of introducing and then sharply rejecting a mythical story, Gale (1994, 33) compares the structure of the *Magna Mater* narrative of 2.600–43.

⁵¹ *Div.* 1.17, with Wardle 2006 ad loc.

⁵² The emphatically positioned *avia* also serves to hint at the falseness of the story: cf. 2.82 *avius a vera longe ratione vagaris* (and compare 5.406).

parodically⁵³ high-flown phrase *lampada mundi* recalls the Greek tragic cliché of describing the sun as a *lampas*.⁵⁴ As opposed to the passage describing the myth, 407–10, which describes the truth, contains no Greek words at all; the overall effect is of the (rejected) mythical interpretation of events being distanced via the switches into Greek, while the physical facts behind the story are stated with clear, direct, and perhaps mildly militarized (*superare, cadunt vires, per-eunt*) Latin expression.⁵⁵

Not all Greek terminations in *DRN* bear this function. Several are simply quotative, marking out words explicitly as Greek: two certain examples are: *quem Magneta vocant patrio de nomine Grai* ('called "Magnet" by the Greeks after the name of its homeland', 6.908); *in summo sunt vertice enim crateres, ut ipsi | nominant, nos quod fauces perhibemus et ora* ('for at the summit are craters, as they call them, which we call "throats" and "mouths"', 6.701–2).⁵⁶ Elsewhere, the same distancing function can be achieved not by Greek but rather by archaic Latin termination: consider lines 22–36 of Book 5, where the *facta Herculis*,⁵⁷ traditionally the hero of Cynics and Stoics,⁵⁸ are listed in a passage replete with Greek words and names (*Nemeaeus, Arcadius, Lernaeeaque, hydra, Diomedis, Stymphala, Thracis*,⁵⁹ *Bistonias, Ismara, Hesperidum, Atlanteum*) and Greek syntax (*acerba tuens*, on which, see Section 5.2 at p. 153). There (5.28) we find the Greek name of Geryon expressed in the genitive singular with an archaic Latin disyllable: *Geryonāi*.⁶⁰ Lucretius' willingness to graft disyllabic genitive suffixes onto Greek loanwords (see also 1.85 *Iphianassai*, 3.131 *harmoniai*) goes beyond what we know of the practice of earlier Latin poets, and here functions to distance these

⁵³ See D. West 1969, 50–3 for this passage as parody of the style of *veteres Graium poetae*, which I take to refer to tragedians (see n. 54).

⁵⁴ Aesch. Ag. 658; Eurip. *Ion* 1467; Theodect. fr. 10.1 Schnell; fr. adesp. 158 Kannicht-Schnell; cf. Parm. B10.3; *Orphica* fr. 762.6 Bernabé.

⁵⁵ Compare Farrell 2001, 48–50 on the implied linguistic contrasts at 1.830–42 (see p. 5).

⁵⁶ These certain examples of Greek terminations in quoted Greek words lend credence to other such forms whose transmission with Greek terminations cannot be confirmed by the metre: *homoeomerian*, 1.830, 834; *Curetas* 2.629, 633; *presteras* 6.424; cf. *prestera* at 6.445.

⁵⁷ The first appearance of this phrase in extant Latin literature, a (Lucretian?) rendering of the Greek ἑργα Ἡρακλέους; cf. Hom. *Od.* 21.26; Pind. fr. 169a.5 (= Plato, *Gorgias* 484b).

⁵⁸ Gale 1994, 35; Galinsky 1972, 104–6.

⁵⁹ Thracis *Munro* : Thracia *codd.*

⁶⁰ Naugerius' certain emendation of the transmitted *Geryona*.

events even further from the reader; what harm, Lucretius, asks, could such distant things do us even now?⁶¹ The hybrid form may also serve to stress the monstrously compounded nature of a three-bodied creature. The compound-heavy line in which *Geryonai* is found—*quidve tripectora tergemi vis Geryonai*—shows further influence of Greek via the form *tripepectora*, a hapax legomenon probably coined by Lucretius from an analogous form such as that used of the same monster at Aesch. Ag. 870: τρισώματός⁶² τᾶν Γηρυῶν ὁ δεύτερος ('three-bodied, a second Geryon').

As well as functioning to evoke (and implicitly to debunk) the stories of myth, Greek words can create an aura of luxury with concomitant ethical implications. Such is clearly the case at 4.1123–32, a list of the expensive vanities of those in love, which is replete with Greek names and loanwords, three of which (*thalassina*, *anademata*, *Alidensia*) are hapax legomena: *Babylonia unguenta*, *pulchra Sicyonia*, *grandes zmaragdī*, *thalassina vestis*,⁶³ *anademata*, *mitrae*, *Alidensia Chiaque*. The connection between Greekness and luxury is a familiar one,⁶⁴ and, as such, the use of Greek words in the composition of a list of ethically and economically unhelpful (1124–5) luxury items has a clear rhetorical motivation. We should note, however, that the force of the argument here is directed not against Greeks but rather against wealthy Romans who spend excessively on imported luxury items.⁶⁵ While exoticism certainly is at play, it is an imported exoticism, well captured here by the combination in pairs of Greek and Latin words: *pulchra Sicyonia*, *grandes zmaragdī*, *thalassina*

⁶¹ For another example of lexical Graecism and Latin archaism working together to create a sense of the historically remote, see 1.476–7 on the *durateus* . . . *equos* of the Trojan War. The important point to be made there, I believe, is not that the archaic form of the noun *equos* resembles a Greek nominative (*pace* Sedley 1998, 51), but rather that the sense of antiquity that accompanies such archaisms can be used together with Greek words to help create a sense of the distant past. For 1.462–82 as a parody of Ennian epic style, see Goldberg 2005, 30.

⁶² With Lucretius' form we might compare the Empedoclean compounds ἀμφίστερνος (B61.1) and εὐστερνός (B96.1); see also Hes. *Th.* 117 εὐρύστερνός, *Op.* 513 δασύστερνός; Pind. *I.* 3.12 βαθύστερνός.

⁶³ See Skutsch 1985 ad *Ann.* 220.

⁶⁴ See, e.g., Sallust, *Cat.* 11, and esp. the speech against the repeal of the Oppian Law attributed to Cato by Livy (34.1.1–4.20, esp. 4.3–4), with Astin 1978, 173–4.

⁶⁵ See the excellent treatment of Brown 1987, 250 for the relevance to this passage of the increased imports of luxury goods into Republican Rome after the conquest of Greece.

we would expect analogies and metaphors to be drawn from sources familiar in elite Roman experience. What is needed here, then, is less the language of exoticism and more the language of familiarity; I would suggest, accordingly, that the strings of Greek words encountered in these passages are intended to be evocative not of distant lands or long-past eras but rather of the olfactory experiences associated with visiting a local doctor or pharmacopeia.⁶⁹ This is confirmed, I submit, by the rare form *panacēs* at 4.124, described by Housman as the one true exception to the rule that in Classical Latin poetry between Lucretius and Juvenal nominative and accusative plurals of third declension Greek nouns always retain their native morphology in those cases where the metre allows us to know. The Latin plural termination of *panacēs* is essentially an archaism in the literary language:⁷⁰ a form which, as best as we can tell, would not be encountered in the poetry of his contemporaries, but which would not be out of place in Lucilius (see 321 M *unde pare<u> tactoe, clamidēs ac barbula prima*).⁷¹ Elsewhere (e.g. *craterēs* 6.701, *lampadas* 2.25) Lucretius can be shown to conform to Housman's rule; yet he departs from it here in choosing a form (*panacēs*) that is unambiguously Latin.⁷² The choice of an unambiguously Latin form here serves, I suggest, to represent these olfactory sensations not as foreign or distant, but as a tangible element of the ordinary experience of elite Roman readers; here familiarity, not distance, is the point.

I hope so far to have demonstrated two things: first, that the functions of Greek words in *DRN* include, but also extend beyond, the creation of a sense of the exotic or foreign; second, that one element of Lucretius' creative arsenal was the freedom to choose—limited to certain types of case—between employing Greek words

⁶⁹ Cf. Langslow 1999, 191, discussing 4.123–5: 'Technical vocabulary may be used to evoke the associated special activity or field of knowledge.'

⁷⁰ Varro (*L.* 10.71, on the interpretation of which, see the comments of de Melo 2019a ad loc.) states that the older Latin form of Greek third declension accusatives in *-ēs* was still in use at the time of writing.

⁷¹ The existence of this parallel in Lucilius speaks strongly in favour of *panacēs* being nominative plural, instead of (Bailey 1947 ad loc., offering no parallels for the length of the final vowel) a lengthened form of the neuter singular (= τὸ πᾶνακες; neuter singular *panaces* is found in Celsus and the Elder Pliny).

⁷² As an alternative, he could have chosen *panacēa*, a form used by Virgil (*A.* 12.419) and probably also by Lucilius (accepting Pius' emendation of *Lucilium* for *Lucretium* at Servius ad *A.* 12.419; see further Butterfield 2013, 109–11).

with Greek terminations, and employing Greek words with Latin terminations. Lucretius did not pick a side in the contemporary dispute regarding how best to decline Greek nouns; rather, he exploited the limited freedom available to him in order to enhance and support his arguments. A common topos found in discussions of the language of *DRN* is to account for its peculiarities by appealing to Lucretius' position 'midway' between the early Latin of Ennius and the language of the Augustan poets.⁷³ With regard to his treatment of Greek words, at least, this explanation, with its emphasis on Lucretian language as a snapshot of a particular stage in the development of literary Latin, is misleading. Lucretius' apparent ambivalence as regards the inflectional trends of the first century BC is due to neither accident nor caprice, but rather to his own recognition that variation in one's approach to the inflection of Greek words brings with it a communicative potential of its own.

5.4. CODE-SWITCHING AND ENDEARMENT:

4.1160–9

Perhaps the most enlightening single passage for the study of Greek words in *De Rerum Natura* is 4.1160–9, a list of names and phrases wrongly applied to women by men in love.⁷⁴ Lucretius provides a long list of names applied by lovers to their beloveds, together with his description of the beloved's 'real' appearance in each case:

nigra ~ melichrus
 immunda et fetida ~ acosmos
 caesia ~ Palladium
 nervosa et lignea ~ dorcias
 parvula pumilio ~ Chariton mia tota merum sal
 magna atque inmanis ~ cataplexis plenaque honoris
 balba loqui non quit ~ traulizi
 muta ~ pudens

⁷³ See, for example, Bailey 1947, 1.72.

⁷⁴ For a detailed intertextual analysis of the Greek names, see Brown 1987, 128–32 and ad locc; see also Shearin 2015, 133–6.

flagrans odiosa loquacula ~ lampadium
 vivere non quit prae macie ~ ischnon eromenion
 iam mortua tussi ~ rhadine
 tumida⁷⁵ et mammosa ~ Ceres ipsa ab Iaccho
 simula ~ Silena ac Satura
 labeosa ~ philema

Lucretius' own descriptions (on the left) are mostly free of Greek words,⁷⁶ while the quoted endearments include, alongside some Latin, a large number of Greek words, including the cardinal number *mia* plus several hapax legomena: *philema*, *cataplexis*, *lampadium*. Here are Greek terminations found nowhere else in *DRN*: the genitive plural in *-ων* (*Charitōn*), the nominative singular suffixes *-ος*, *-ον*, *-η*, and *-ους* (*melichrus*),⁷⁷ even the third-person singular verbal suffix *-ει* (*traulizi*). We also find two intra-phrasal switches from Greek to Latin: *Chariton mia tota merum sal*; *cataplexis plenaque honoris*.⁷⁸ We may note here with Brown (1987, 282) that Lucretius' own descriptions of the women are not stylistically neutral: this passage features perhaps the greatest concentration of morphological and stylistic colloquialisms in the whole poem, including diminutive forms (*parvula*; *loquacula*; *simula*),⁷⁹ apparent redundancy (*inmunda et fecida*; *magna atque inmanis*),⁸⁰ and the unpoetical preposition *prae*.⁸¹ So, at the same time as he is lampooning the Greek endearments of the confused lovers, Lucretius is himself employing a colloquial register in order to enhance the harshness of the image of the women with which he provides us.

⁷⁵ *tumida Bernays* : *iamina codd.*

⁷⁶ *Simula*, the (colloquial) diminutive of *simus* (= *σιμός*) provides an exception.

⁷⁷ For the use of *-u-* for *-ov-* in Latin renderings of Greek, see Leumann 1977, 75.

⁷⁸ Rouse and Smith's decision to separate *chariton mia* and *tota merum sal* by printing them in two different sets of inverted commas is a mistake; it should be understood as a single utterance featuring a switch of codes from Greek to Latin.

⁷⁹ Axelson 1945, 38–45; Hofmann and Ricottilli 1985, 297–9; Löfstedt 1956, 2.336–8; Chahoud 2010, 62–3; de Melo 2011, lxxiii. Chahoud's warning against automatically taking diminutives as indicators of colloquialism notwithstanding, the unusual concentration of diminutive forms in this short passage, coupled with the other surrounding colloquialisms, should be enough for us to identify colloquialism in the use of diminutives here.

⁸⁰ Chahoud 2010, 61; Hofmann and Ricottilli 1985, 195–243.

⁸¹ Axelson 1945, 81; Reinhardt 2010, 216.

The mental process leading to this (mis-)use of language is described by Lucretius at 1149–54:

et tamen implicitus quoque possis inque peditus⁸²
 effugere infestum, nisi tute tibi obuius obstes 1150
 et praetermittas animi vitia omnia primum
 aut quae corpori sunt eius, quam praepetis ac vis.
 nam faciunt homines plerumque cupidine caeci
 et tribuunt ea quae non sunt his commoda vere.

And even though you are entangled and impeded, still you may escape this danger, unless you stand blocking your own path and first overlook all the faults of the mind and body of her whom you desire and endure. For men often do this when blinded by desire, and attribute to women good qualities which are not in fact theirs.

Lucretius does not say here that the words and phrases applied to the women are deliberately partial or misleading; they are not ‘euphemisms’ intended to efface or gloss over the truth, but rather are mistaken claims made by men in a state of confusion—a confusion which involves the incorrect attribution of certain pleasing qualities (*commoda*) to women who do not in fact possess them. The source of this confusion is cognitive rather than linguistic; it involves a certain dissonance between the content of a man’s perceptual experience and his awareness/interpretation of that content, a dissonance brought about by the mental disturbance of love.⁸³ This analysis of error is a familiar part of Epicurean epistemological doctrine, as is the resultant problem of the incorrect use of names. If the men had not allowed themselves to be rendered incapable by mental disturbance, they would have been able to submit their beliefs about the *commoda* of their beloved women to the empirical test of ἐπιμαρτύρησις and so recognize their beliefs as false (compare *Ep. Hdt.* 50–1); as it is, their ‘blindness’ in love leads to a disturbed connection between the beliefs they form and their actual perceptual experiences, which in turn leads to falsehood. The *muta* ~ *pudens* pair (1164) provides a good (monolingual) example of this process in action: the man perceives the woman being silent; in response to this he forms the false belief that she is *pudens*, i.e. that her silence should be attributed to an admirable emotional or behavioural state. This false belief is separate from, although connected to, the perception; in Epicureans terms, it is a

⁸² Note the mimetic tmesis.

⁸³ See further Taylor 2016b, 142.

falsely added opinion (τὸ δὲ ψεῦδος καὶ τὸ διημαρτημένον ἐν τῷ προσδοξαζομένῳ αἰεὶ ἐστὶν ‘falsehood and error are always located in added opinion’, *Ep.Hdt.* 50).

Lucretius superimposes a linguistic element over this familiar story of cognitive error: when the confused men assign false attributes to the women whom they love, they also, more often than not, switch from Latin to Greek. This shift, Lucretius suggests, serves both to mask and compound their error, as the truth is suppressed beneath the language of erotic endearment (cf. 4.1156 *esse in deliciis*).⁸⁴ A thin (*macies*) woman is called an *ischnon eromenion*, the diminutive endearment *eromenion* suggesting that the man, in his confusion, has connected the woman’s slender figure to her perceived erotic appeal instead of recognizing it as a symptom of her malnutrition or disease. Likewise with *iam mortua tussi* ~ *rhadine*: the switch of codes into Greek, the language of endearment, glosses over the fact that the woman in question is slender (*rhadine*) because she is consumptive. The pair *inmunda* ~ *acosmos* (1160) is suggestive: despite the closeness in form,⁸⁵ these two words possess quite different meanings: cleanliness (*-mundus*) is not the same thing as adornment (*-cosmos*), and while a lack of adornment can be considered a virtue, a lack of cleanliness cannot.⁸⁶ We have here, then, a pointed and revealing kind of etymological paronomasia: to the unwary, the shift from *inmundus* to *acosmos* might seem to be a perfectly innocent use of Greek endearment, but that endearment masks a world of difference in meaning.

In two cases, names are applied to women on the basis of certain (limited) attributes which the women are thought to share with the primary referents of those names. First, in the case of *nervosa et lignea* ~ *dorcas*, to name a woman who shares two attributes with an antelope as ‘*dorcas*’ may capture the similarities, but also fails to capture the differences, suggesting that she may have more in common with the antelope (grace, liveness, etc.) than she really does.

⁸⁴ A process perhaps facilitated by the nationality of Roman prostitutes, who were usually Greek (Adams 2003, 360–1). On the use of Greek in Roman terms of endearment, see Adams 2003, 360–2; Chahoud 2004, 26.

⁸⁵ Varro connected the noun *mundus* (= world) to the adjective *mundus* (= clean): see *Menipp.* fr. 420 *Cèbe appellatur a caelatura caelum, graece ab ornatu κόσμος latine a puritia mundus*, a claim later echoed by Pliny (*HN* 2.8.1, *namque et Graeci nomine ornamenti appellavere eum et nos a perfecta absolutaque elegantia mundum*).

⁸⁶ See texts gathered at Brown 1987 ad loc.

The use of the exotic Greek name *dorcas* functions as a kind of smokescreen, disguising the difference in meaning between the idealized *dorcas* and the truth of *nervosa et lignea*, and perhaps also giving an air of mystery to the woman (antelopes would occasionally have been encountered as foreign creatures imported to Rome for entertainment purposes).⁸⁷ A similar argument—the use of Greek as a smokescreen to disguise flawed/inaccurate descriptions—can be made for *magna atque inmanis* ~ *cataplexis plenaque honoris*. Once again, these errors are to be explained in Epicurean terms: the beliefs which have led to the use of each of these words have been falsely added to the men's perceptual experiences: a man sees a nervous and 'woody' woman and considers her to be gazelle-like; a man sees a large woman and takes that to imply that she is honourable. As a result, the words are incorrectly applied to their referents.

The intra-phrasal code switch of *Chariton mia tota merum sal*⁸⁸ (~ *parvula pumilio*) may be discussed alongside *caesia* ~ *Palladium*, *tumida et mammosa* ~ *Ceres ipsa ab Iaccho*, and *simula* ~ *Silena ac Satura*, all of which apply mythical names to women. It is not clear why a woman who is small in stature should be called *Chariton mia*, unless of course her size is taken as an indication of gracefulness.⁸⁹ In any case, these four pairings provide examples of how erotic confusion can lead to the inappropriate (and potentially confusing in itself) application of divine or mythological names to everyday objects and people. Given the connection made here between false belief and the application of divine/mythological names, as well as the appearance of the name *Ceres*, it is tempting to align these passages with 2.655–60 (on which, see pp. 67–9), which discussed the properness of metonymies involving names of the gods being applied to everyday things.⁹⁰

⁸⁷ Brown 1987 ad loc. The word may also carry particular cultural connotations: for *dorcas* as a personal name of Greek courtesans, see Brown 1987 ad loc.; Colin 1955, 867–8.

⁸⁸ The adjectival expression *tota merum sal* may be considered colloquial (thus, TLL 8.846.35, 'vox vulgaris', with Plautine and Petronian citations at 847.78–848.25; Abbott 1907, 45; Hofmann and Ricottilli 1985, 220–1), which would add to the fast-paced, conversational tone of the intra-phrasal switch.

⁸⁹ Alternatively, it may imply an ironical play on the name of the Greek goddess of increase, *Ἀύξω*, worshipped at Athens as one of the Graces (Paus. 9.35.2; SEG 21.5629, with Parker 2005, 435); for the names of Graces used as names of Greek courtesans, see Colin 1955, 868–9, cited by Brown 1987 ad loc.

⁹⁰ There is a slight difference, however: at 2.659–60, the use of the name *Ceres* is the potential cause of the false religious belief described in the *dum* clause; conversely,

The prevailing mode of the passage is satirical:⁹¹ like satire, the passage seeks to expose false belief and pretence, and (again, like satire) one way in which said false belief and pretence is revealed is via the deployment of Greek. Given this satirical element, it is unsurprising that much the most salient Latin intertext for this passage of *DRN* is found in Lucilius (540–6 M), where we find a similar combination of Greek code-switches and mythical names in a passage that satirizes the deceptive use of literary Greek to disguise the faults of women:⁹²

num censes calliplocamon callisphyron ullam	540 M
non licitum esse uterum atque etiam inguina tangere mammis,	
conpernem aut varam fuisse Amphitryonis acoetin	
Alcmenam, atque alias, <He>lenam ipsam denique—nolo	
dicere: tute vide atque disyllabon elige quodvis—	
κούρην eupatereiam aliquam rem insignem habuisse,	545
verrucam, naevum, punctum, dentem eminulum unum?	

You don't believe, do you, that a 'fine-tressed', 'fine-ankled' woman could not touch belly and even groin with her breasts, or that Alcmena 'spouse of Amphitryon' could not have been knock-kneed or bandy-legged, and that others, even Helen herself, could not have been—I don't want to say it: see to it yourself and choose any 'disyllable' you like—that 'maiden of good parentage' could not have had some outstanding feature, a wart, a mole, a spot, a single little protruding tooth?

(trans. Morgan 2010, 326, adapted)

5.5. CONCLUSION

This chapter has taken us away from the linguistic theory of Epicurus to an area of linguistic thought and practice which was central to Lucretius' own conceptualization of his task. Greek forms—whether words or syntagms—are used in *DRN* for a variety of functions, including the invocation of intertexts, the granting of authority to the speaker, the marking out of ideas, places, or periods as distant

at 4.1168, the false belief brought about in the men by *cupido* is the cause of the woman being named *Ceres*.

⁹¹ See Clay 1983, 233.

⁹² For the relevance of this passage to Lucretius, see Brown 1987, 281; for its analysis (and especially its metrical features), see Morgan 2010, 326–32; see also Chahoud 2004, 15–16.

from the Roman reader, as well as, in appropriate contexts, the evocation of more local and familiar memories and experiences. Greek is also characterized negatively as a language of confusion and equivocation. Once again, we find in Lucretius evidence of widespread linguistic creativity, the continuous discovery and rediscovery of the potential of Latin as a poetic and philosophical language; in the cases under discussion here, that creativity consists in the free exploration of what foreign linguistic forms (some of which are more foreign than others) can contribute to an allegedly poor language.

Calques and Compounds

The regular use of compounding as a particular aspect of Lucretian style has recently attracted a degree of scholarly attention, especially from David Sedley (1998, 24–5; 2003), whose discoveries this chapter is partly intended to supplement and develop.¹ In a large number of cases the use of compounds and prefixed words should be considered part of Lucretius’ attempt to expand the lexicon of Latin philosophy and to mitigate the perceived effects of *egestas linguae*. Sedley (1998, 38–9) has identified an important Lucretian strategy for vocabulary formation according to which the technical terms of Epicurus’ Greek are rendered not with equivalent Latin technicalities but rather with ‘a range of his own live metaphors’. Sedley terms this strategy ‘metaphorical diversification’, and shows that it was the guiding principle in determining the range of Lucretian terms for both *ἄτομος* and *εἰδωλον*. Here I outline a different strategy—the use of calques—which plays an equally important role. I use ‘calque’ here to refer to a ‘morphological calque’,² i.e. a compound or prefixed word in one language which replicates the structure of a compound or prefixed word in another language. Here are three Lucretian examples:

innubilus ~ ἀννέφελος	3.21
altitonans ~ ὑψιβρέμετης	5.745
montivagus ~ ὀρίπλαγκτος	2.1081

¹ See also Garani 2007a, 4, 25, 84–5.

² As opposed to a ‘semantic calque’ (i.e. a loan shift, such as *casus* taking on the meaning ‘grammatical case’ on the model of *πτῶσις*); see Fruyt 2011, 151–5; Gusmani 1974.

Modern definitions of morphological calques stress the importance of neologism. So, in an influential introduction to historical linguistics we read that calquing ‘consists of translating morphologically complex foreign expressions by means of novel combinations of native elements that match the meanings and the structure of the foreign expressions and their component parts’.³ My discussion here will not be limited to neologism, for two fairly simple reasons. First, in practical terms, it is often impossible to determine whether or not the first appearance of a word in extant texts is a neologism. To take the example of *innubilus* (3.21, a Lucretian hapax), the fact that 3.18–22 is a close rendering of Homer, *Odyssey* 6.42–5 (the only Homeric passage where *ἀννέφελος* is found) may lead us to assume that Lucretius coined it for the purpose, but such an assumption, even if highly likely, cannot be proven. The same is true of *montivagus* (2.1081), which has been shown to be translating the Empedoclean form *ὀρίπλαγκτος*, encountered at *P. Strasb. gr. Inv.* 1665–1666 a (ii) 26,⁴ but which is not certainly a Lucretian neologism (it occurs in a quite different context at Cic. *Tusc.* 5.79, suggesting that it may have had a broader contemporary usage). Second, some calques in *DRN* which are certainly not Lucretian neologisms involve, nonetheless, a high degree of linguistic ingenuity. A good example is provided by *altitonans* at 5.745, where it qualifies the wind *Voltumnus*. This natural-philosophical usage, qualifying the wind itself, is very different from the use of the same term in the poetry of Cicero and Ennius, the latter of whom seems to have calqued it from the Homeric *Ζεὺς ὑψιβρεμέτης*:⁵

contremuit templum magnum Iouis altitonantis.

Enn. *Ann.* 554 Sk.

The mighty temple of deep-thundering Jupiter trembled.

nam pater altitonans stellanti nixus Olympo

Cic. *carm.* fr. 6.36 Blänsdorf⁶

For the deep-thundering father, leaning on starry Olympus

By taking an adjective created by Ennius as a divine epithet and using it to qualify a phenomenon in the natural world (*Voltumnus*), Lucretius

³ Hock and Joseph 1996, 264, quoted at Adams 2003, 459.

⁴ Martin and Primavesi 1998 ad loc. For discussion, see Sedley 2003, 6–9; Campbell 2007, 50–2.

⁵ *Il.* 1.354.

⁶ From Book 2 of *Consulatus Suus*, produced by Cicero in 60 BC.

demythologizes the Ennian compound and in so doing extends the semantic field of the pre-existing term beyond the world of religion and into the realm of science. This creative reinvention of existing compounds deserves a place in a discussion of calques in *DRN*.

Cicero employs the phrase *verbum ex verbo* for the process of morphological calquing on four separate occasions;⁷ the Latin–Greek pairings in question are: *veriloquium* ~ ἐτυμολογία (*Top.* 35); *producta* ~ προηγμένα (*Fin.* 3.52); *comprehensio* ~ κατάληψις (*Luc.* 17 and 31). The close translation (or even transliteration) of technical terms is, of course, a familiar aspect of the language of Cicero’s theoretical works, and out of these three calqued terms *veriloquium* is the only one to be immediately rejected as unsuitable. Nevertheless, Ciceronian calques rarely last for long; usually they are introduced as an explicit, flagged translation for a certain term before being replaced with something more familiar or less unwieldy. Calques are fundamental to the language of *DRN* in a way that is arguably not true of their often temporary role in Cicero’s technical writing. Calquing in *DRN* is not merely technical or mechanical, but rather is creative on all levels: not only can Lucretius’ calques be both lexically creative, in that they often appear to involve neologism, and semantically creative, in that they often involve loan shifts,⁸ but they are also metaphorically productive, in that Lucretius is keen to exploit the figurative potential of the calques he uses. The result is a certain kind of paradox at the heart of Lucretian vocabulary: where there are signs of a very close morphological relationship between Lucretius’ Latin terms and the original Greek terms being translated, we nevertheless still find evidence of the transformative effects of Lucretius’ linguistic ingenuity.

6.1. CALQUES FROM COMPOUNDS

I begin with Empedocles, with whom much of the recent scholarship on the sources for Lucretius’ compound adjectives has been concerned. So far, only one compound adjective of Empedocles has been decisively

⁷ *Verbum* here referring perhaps not to the compound itself but rather to the individual morphemes which make it up (Reinhardt 2003 ad *Top.* 35); the same phrase is used in a looser sense (*morbi* < πᾶθη) at *Tusc.* 3.7.

⁸ Loan-shifting occurs when ‘the semantic field of a lexeme in the recipient language is adjusted to replicate that of an already partially equivalent one in the source language’ (Coleman 1975, 106); see also Nicolas 1996, 7; n. 2 above.

shown to be the basis for a Lucretian calque: ὀρίπλαγκτος, cited above as the basis for *montivagus* (2.1081). It is likely, however, that other such calques are present in the text of *DRN*. Sedley (2003) identifies a number of passages where the collocation of compound adjectives in a single Lucretian passage, combined with appropriate content, may be suggestive of an underlying Empedoclean original. The compounds in question are *navigerum* (1.3), *frugiferentis* (1.3), *squamigerum* (2.1083), *quadripedum* (5.789), *pennipotentum* (5.789), *levisomna* (5.864), and *lanigerae* (5.866). Three of these seven compounds have identifiable close equivalents in Greek (*navigerum* ~ ναυσίπορος; *frugifero* ~ καρποφορέω; *quadripes* ~ τετράπους,⁹ none of which appears in extant texts of Empedocles), and two are found in Latin texts prior to Lucretius (*quadripes*, *lanigerus*). Before seeking to evaluate these claims, there are two ways in which the picture can be enriched. First, we can note how important a role was played by compound adjectives of this sort in Latin poetry prior to Lucretius; second, we can consider a number of non-Empedoclean Greek sources for comparable calques in *DRN*. Both of these discussions will serve to complicate the notion that collocations of compound adjectives in *DRN* may be used to identify an 'Empedoclean fingerprint', i.e. the presence of a lost passage of Empedocles being translated by Lucretius.¹⁰

There can be no question that the high frequency of compounds in Lucretius owes something to the lexical predilections of earlier Latin poets, in whose texts such forms are regularly encountered.¹¹ As an example, of the twenty-one compound adjectives in *-fer* and *-ger* employed by Lucretius (not including *semifer*), eleven appear in texts which certainly predate him.¹² Not only are compounds regularly encountered in these early texts, but we also often find collocations

⁹ Sedley (1998, 25) points out that the first two of these both occur in the same line, at *DRN* 1.3.

¹⁰ For the phrase, see Sedley 2003, 6, 8, 10.

¹¹ See esp. Meillet 1928, 195; Soubiran 1972, 98; Catone 1964, 134–5. For the distribution, by text and genre, of different types of compound in early Latin literature, see Perret 1952, 158–9 n. 1, and esp. Jocelyn 1967, 200, 216, 248, 250, 261, 292.

¹² Forms which appear first (or only) in Lucretius are: *falcifer*, *florifer*, *glandifer*, *rorifer*, *sensifer*, *barbiger*, *naviger*, *pinniger*, *saetiger*, *spumiger*, *squamiger* (but cf. Cicero's *squamifer* at *Arat.* 34.328). Forms which appear in texts predating Lucretius are: *aestifer* (Cicero, *Aratea*.); *frondifer* (Naevius, *Lycurgus*); *horrifer* (Pacuvius; Accius); *ignifer* (Cicero, *Aratea*); *lucifer* (Accius; Lucius Pomponius); *mortifer* (Lucilius; Cicero, *Aratea*); *signifer* (Cicero, *Aratea*); *corniger* (Cicero, *Aratea*); *laniger*

of more than one compound form in a single short passage, e.g. Pl. *Curc.* 116–17 *vinipollens* . . . *semisomnae*; Cic. *Arat.* 34.121–2 *levipes* . . . *horrificos*; Cic. *Arat. Prog.* 4.10–11 *mollipedesque* . . . *umiferum*. Occasionally we find two compound adjectives within a single line:

bellipotentes sunt magis quam sapientipotentes
Enn. *Ann.* 198 Sk.¹³

quadrupes tardigrada agrestis humilis aspera
Pacuv. *trag.* 2 R³ = fr. 3.1 Schierl

Nerei repandirostrum incurvicervicum pecus
Pacuv. *trag.* 408 R³ = fr. 238 Schierl

pinnigero, non armigero in corpore
Acc. *trag.* 547 R³ = 222 Dangel

nitidantur vulgo quadrupedantum¹⁴ sonipedum
Acc. *trag.* 603 R³ = 400 Dangel

So, short passages, even single lines, containing more than one compound are not unheard of in early Latin literature. With such compound-heavy lines we may compare *DRN* 5.789 which, it has been suggested (Sedley 2003, 9–10; Garani 2007a, 84), may bear the Empedoclean fingerprint:

quadripedum membris et corpore pennipotentum
on the limbs of quadrupeds, and on the body of strong-winged birds

The fact that the use of such compounds is so prevalent in Latin texts which predate Lucretius, coupled with the fact that such texts often feature the same compound forms as we encounter in *DRN*, should affect our notion of the ‘Empedoclean fingerprint’ in two ways. First, there are other traditions besides that of Empedocles behind Lucretius’ compound-heavy style, and so other ways of explaining passages featuring multiple compounds; second, even if a given passage of Lucretius does reflect Empedocles’ use of compounds, it may simultaneously show the influence of the early Latin poetic lexicon. Take 5.864–7, which Sedley, on the basis of the convergence of Lucretian

(Ennius, *saturae*; Accius, *praetextae*); *moriger* (Naevius; Plautus; Terence; Afranius; Accius); *pinniger* (Accius).

¹³ Adduced at Sedley 2003, 6 n.15.

¹⁴ quadrupedantum *Mercier* : (qua)pripedantur *codd.*

and Empedoclean theories concerning the survival of the fittest, identifies as a likely candidate for the Empedoclean fingerprint test:¹⁵

at levisomna canum fido cum pectore corda,
et genus omne quod est veterino semine partum 5.865
lanigeraeque simul pecudes et bucera saecula
omnia sunt hominum tutelae tradita, Memmi

But the light-sleeping minds of dogs, with loyal heart, and the whole breed born of the seed of draught cattle, and at the same time the wool-bearing flocks and the generations of horned oxen, all have been given over to the protection of men, Memmius.

That there is an underlying Empedoclean original here may well be correct; the absence of attested Greek compounds on the basis of which *levisomna* and *lanigerae* may have been calqued is offset by the high proportion of surviving Empedoclean compound adjectives that are found nowhere else in Greek literature.¹⁶ Claims for the possible influence of Empedocles, however, must be tempered by an acknowledgement of the clear influence of diction inherited from earlier Latin literature:

pecus lanigerum eximia pulchritudine
Acc. *praet.* 20 R³ = 654 Dangel

a wool-bearing flock of outstanding beauty

This line, with whose phrasing we may compare the *lanigerae pecudes* of DRN 5.866, is taken from the dream of Tarquinius Superbus in Accius' *Brutus*, where it is followed by the attempted slaughter of one of the sheep. The *Brutus* has a performance history of some complexity in the last decades of the Republic,¹⁷ and evidence suggests that it would be recognizable to an audience of the mid-50s.¹⁸ To this we may add a line from Pacuvius' *Teucer*, whose idiom is noticeably close to that of 5.867:¹⁹

¹⁵ 2003, 10–11; see also Garani 2007a, 85.

¹⁶ For lexical innovation in Empedocles, see esp. Willi 2008, 202–19.

¹⁷ See Erasmo 2001.

¹⁸ See Cic. *Sest.* 123 on Aesopus' performance at the *ludi Apollinares* of 57 BC.

¹⁹ That Lucretius read and was willing to imitate Pacuvius is demonstrated by 5.318–19 *denique iam tuere hoc, circum supraque quod omne | continet amplexu terram*, long recognized as an imitation of Pacuv. *trag.* 86–7 R³ = fr. 79.1 Schierl *hoc vide, circum supraque quod complexu continet | terram*; see further: Taylor 2016b, 150–4.

neque eius gnati parvi, qui tibi in tutelam est traditus

Pacuv. *trag.* 330 R³ = fr. 243.4 Schierl

And not of his young son, who was given over to your guardianship

The notion that the language of 5.864–6 carries with it a flavour of early Latin diction is given further support by a line found earlier in the poem where the ‘Accian’ phrasing of 5.866 is combined with the archaic form *duellica*:²⁰

lanigerae pecudes et equorum duellica proles

2.661

The wool-bearing flocks and the warlike offspring of horses

Accius’ use of the phrase *pecus lanigerum* does not, of course, disprove the influence of a lost passage of Empedocles on *DRN* 5.864–6. It does, however, demonstrate that the lexicon of early Latin poetry should be considered a contributing factor, perhaps (but not necessarily) alongside Empedocles, to the compound-heavy style of this passage. Either there is or there is not an Empedoclean text underlying 5.864–6; if there is not, then these early Latin texts (or ones including similar words and phrases) influenced Lucretius in terms of how he expressed his own ideas; if there is, then Lucretius clearly relied on pre-existing Latin phrases in his rendering of Empedocles’ Greek.²¹

Consider now the following line:

quae mare navigerum, quae terras frugiferentis

1.3

who the ship-bearing sea, who the crop-bearing lands

Sedley (2003, 24–5) identifies this line as showing the influence of Empedocles on the basis of two factors: (a) both of the compound adjectives ‘accurately translate’ attested Greek compound forms (*ναυσίπορος* and *καρπόφορος*), and (b) the combination in a single line of two compound adjectives of this type is rare enough in Lucretius and common enough in Empedocles as to suggest the presence of an underlying Empedoclean original. Point (a) is quite correct; as for (b), although it is true that a compound-heavy style is a feature of Empedoclean verse, we have seen that it is not unique in

²⁰ See Clausen 1971, 71, discussing this line: ‘Here is a close imitation of an archaic poet, possibly Ennius, or at least of the archaic style.’

²¹ Although *levisomna* at 864 is hapax legomenon, both radical elements are productive of other compounds in earlier Latin literature, namely *levifides* (Pl. *Pers.* 243) and *semisomnus* (e.g. Pl. *Curc.* 117).

this respect. So, as with *lanigerae pecudes*, we should be alert to the possibility that Lucretius' lexical choice in this line is influenced not by Empedocles but by the diction of early Latin verse.²² Two texts dating from before the time of Lucretius provide the kind of close analogues for *terras frugiferentis* which extant fragments of Empedocles do not:

terrai frugiferai

Enn. Ann. 510 Sk.

of the crop-bearing land

in pontum magnum ex terra frugifera

carmina Marciana fr. 1.6 Morel (Livy 25.12.6)

into the great sea from the crop-bearing land

The *carmina Marciana* preserved in Livy 25—prophecies predicting the disaster at Cannae and part of the aetiology of the *ludi Apollinares*—are datable on linguistic grounds to the late Republic. Briscoe, drawing on the analyses of Münzer and Klotz, suggests either that they were written during the civil war of Sulla and thence recorded by one of Livy's sources—whether Claudius Quadrigarius or Valerius Antias—or else that they were an invention of the annalists themselves.²³ Either way, they predate Lucretius. The *carmina Marciana* fragment, then, confirms that compounds such as *frugifer* could be used in a context of deliberate archaism in the first century BC;²⁴ its status as a religious text is obviously relevant to its inclusion in the hymn at the start of *DRN* 1: this is sacral language. The Ennian fragment, which, given Ennius' tendency elsewhere to cluster archaisms at the end of the hexameter, probably belongs (like Lucretius' *terras frugiferentis*) at the end of the line,²⁵ provides further clear evidence of the archaic ring of this phrase.

To further understand the significance of these early Latin intertexts at 1.3 we may also consider how the very first line of the poem interacts with comparable lines in both Greek and Latin hexameter poetry:

Aeneadum genetrix, hominum divomque voluptas

DRN 1.1

²² See here Goldberg 2005, 33 nn.32, 33.

²³ Briscoe forthcoming.

²⁴ Elsewhere in the same short *carmen* (Livy 25.12.5–6) we find the compounds *Troiuigenus* (used by Lucretius at 1.465) and *alienigenus* (used five times in *DRN*).

²⁵ See Skutsch 1985 ad loc.

τὴν δ' ἡμίβητ' ἔπειτα πατὴρ ἀνδρῶν τε θεῶν τε²⁶

Hom. *Il.* 1.544.

patrem divomque hominumque²⁷

Enn. *Ann.* 592 Sk.

Sedley hypothesizes an Empedoclean phrase, playing on the well-known Homeric formula, underlying Lucretius' *hominum divomque voluptas*.²⁸ Whether or not this is correct, we can see from the above examples that in using this phrase in the opening line of his poem Lucretius succeeds in adopting and transforming an existing Ennian idiom which, especially given its provenance in Homer, can be taken as prototypical and emblematic of epic. The combination of this phrase with the apostrophe of *Venus genetrix*, which is also inspired by Ennian usage,²⁹ confirms *DRN* 1.1 as an attempt by Lucretius both to invoke concepts central to Roman cultural and national identity and at the same time to transform them via relocation to a philosophical context. This is part of the same strategy of cultural transformation which will later lead Lucretius to cloak Epicurus' philosophical achievements in the Ennian language of military conquest. The use of the archaic formula *terras frugiferentis* at 1.3 may similarly be explained: whether or not there is an underlying Empedoclean phrase, the appearance of a near-identical phrase in texts expressing, or purporting to express, the formal (and in one case sacral) language of the middle Republic confirms this as a further instance of the Lucretian appropriation and transformation of the language of texts considered central to the culture of Republican Rome.

It should be noted that Empedocles is not the only non-Epicurean Greek source from which Lucretius calqued his compound forms. The case of *innubilis* ~ ἀννέφελος has already been mentioned (at the beginning of this chapter at pp. 172–3), and in Section 5.3 a connection was posited between *tripectora* at 5.28 and *τρισώματός* at Aesch. Ag. 870 (p. 162). To these may be added the following examples of

²⁶ A common formula for Zeus in Homer and Hesiod.

²⁷ See also 203, 591 Sk., with Pullig 1888, 31.

²⁸ 1998, 23–4, emphasizing the connection between 1.1 and 6.94 (the Empedoclean address to Calliope); see further Gale 1994, 153–4.

²⁹ *Ann.* 58 Sk. *te †saneneta precor, Venus, te genetrix patris nostri*; Bernays 1885, 2.2. On Skutsch's emendation here *ted Aeneia* . . . and its relevance, if correct, to *DRN* 1.1, see Goldberg 2005, 34–5.

possible calques from other Greek literary texts and traditions (excluding Epicurus):³⁰

capripes ~ αἰγιόδοης: appearing for the first time in Latin at *DRN* 4.580, *capripedes* qualifies the *satyros* whom, alongside Pan (586), rural folk imagine to inhabit the countryside. Αἰγιόδοης is used as an epithet for Pan himself at *Hom. Hymn.* 19.2 and 37, and is used of a satyr in an epigram ascribed to Zenodotus (*A. Plan.* 15.2).³¹

florifer ~ ἀνθοφόρος: this compound appears for the first time in Latin at *DRN* 3.11 *floriferis ut apes in saltibus omnia libant*. Ἀνθοφόρος in Greek literature is an attribute applied to meadows (*Ar. Ra.* 445; *A.P.* 12.256), which confirms Lucretius' *florifer saltus* as a likely calque.

ignifer ~ πυρφόρος: This compound occurs on four occasions in *DRN*, in two of which (5.459, 498, both in cosmological contexts) it qualifies *aether*, a combination clearly inspired by (or sharing a common early Latin source with) Cicero's astronomical usage at *Arat.* 34.88 *igniferum mulcens tremebundis aethera pinnis* ('soothing the fire-bearing ether with trembling wings'). Buescu (1941, ad loc.) takes Cicero's *igniferum* as a calque of πυρφόρος, although there is no extant Greek text in which αἰθήρ is qualified by it.³²

Πυρφόρος is an established Greek epithet applied to Zeus' κεραυνός (*Pind.* *N.* 10.71; *Aesch. Sept.* 444; *Soph. O.C.* 1658; *Phil.* 1198), and this mythic usage is of special importance for our understanding of *DRN* 6.379, the first line of the section explaining the nature of the thunderbolt, which includes an argument (387–95) against the idea that Jupiter uses his *fulmen* as a tool of punishment: *hoc est igniferi naturam fulminis ipsam | perspicere* ('this is to understand the very nature of the fire-bearing thunderbolt'). The qualification of the *fulmen* at 379 with a compound form calqued from an epithet applied elsewhere to the

³⁰ A caveat here: it is possible in each of these cases that Lucretius is drawing on now lost intermediary Latin sources. For one probable case of such influence, see *falcifer*, used of scythe-bearing chariots at *DRN* 3.642 and 5.1301, and probably (thus Heinze 1897, 141) calqued from the Greek (ἄρματα) δρεπανηφόρα of, e.g., *Xen. An.* 1.7.10; *Plb.* 5.53.10; *Appian BMithr.* 18; *D.S.* 7.53. Ennius, *Ann.* 483–4 *Sk.*, probably taken from his description of the battle of Magnesia, is drawn on by Lucretius later in the same passage and may (although this cannot be proven) have provided a source for the term *falcifer*; see Skutsch 1985, 644–6; Nethercut 2014, 447–50; 2018, 79–82.

³¹ We also find the synonymous compound τραγόπους used of Pan by 'Simonides' (*A. Plan.* 232.1) and in a number of Hellenistic epigrams.

³² See, however, *Ar. Thesm.* 1050 *πυρφόρος αἰθέρος ἀστὴρ* ('fire-bearing star of ether').

punitive thunderbolt of Zeus should be understood as part of Lucretius' strategy of demythologization in this passage.³³

lauricomus ~ **δαφνόκομος**: hapax legomenon, *lauricomus* is used at 6.152 of laurel-covered mountains being burned up; three lines later (154–5) the same tree is described as the *Phoebe Delphica laurus* ('Delphic laurel of Phoebus'). The anonymous *A.P.* 9.505 echoes at line 11 this connection between Apollo and a compound meaning 'laurel-haired', providing evidence for a Greek form from which Lucretius' *lauricomus* may well have been calqued: *Δαφνοκόμοις Φοίβοιο παρὰ τριπόδεσσι πολεύω* ('I live beside the laurel-haired tripods of Phoebus').³⁴ Garani (2007a, 143–4) identifies a demythologizing function in the mention of *Phoebus* here; one might suggest that the transfer of the calqued epithet *lauricomus* from its original divine context to a new empirical context constitutes a further aspect of that demythologization.

suavidicus ~ **ἡδυεπής**: another word occurring only in Lucretius, *suavidicus* appears at 4.180 (= 4.909): *suavidicis potius quam multis versibus edam* ('I will bring forth in verses that are sweet-voiced rather than many'). Given the central importance of Hesiodic poetics to Lucretius, we should be alert to the possibility that *suavidicus* is calqued from *ἡδυεπής*, a term used by Hesiod (*Th.* 965, 1021) to refer to the Muses.³⁵ The form *suaviloquens*, used by both Lucretius and Ennius at the end of the hexameter (compare 1.945 to Enn. *Ann.* 304 Sk.) was clearly created by Ennius from the same Greek compound, as encountered in Homer (Pullig 1888, 37). An additional source text for *ἡδυεπής* is provided by the closing lines of the proem to Meleager's *Garland* (*A.P.* 4.1.57–8), a text which, as I have argued above (pp. 10–11), may be of some importance to Lucretius' presentation of his own task at 1.929 = 4.4: *ἀλλὰ φίλοις μὲν ἐμοῖσι φέρω χάριν ἔστι δὲ μύσταις | κοινὸς ὁ τῶν Μουσέων ἡδυεπὴς στέφανος* ('to my friends I bring a gift; it is a sweet-voiced garland of the Muses, common to initiates').

It should now be clear that the use of morphological calquing in *DRN* as a strategy for rendering Greek compounds into Latin is by no means confined to forms from Empedocles. Rather, Empedocles is simply the most philosophically significant of a number of Greek sources whose compound forms have been subject to this treatment.

³³ For demythologization here, see also Taylor 2016b, 144–5.

³⁴ See also Opp. *Cyn.* 1.365 *Φοῖβον δαφνοκόμην*.

³⁵ The same term may also bear a Homeric poetic significance: see Pindar, *N.* 7.21, *διὰ τὸν ἄδυεπῆ . . . Ὀμηρον*.

6.2. CALQUES FROM PREFIXED WORDS

The examples *iniectus* ~ ἐπιβολή (discussed at pp. 75–80), and *subiungo* ~ ὑποτάσσω (discussed at pp. 48–9) make it clear that calquing is not limited to the more obviously ‘poetic’ forms of *DRN*, but also plays a role in the formation of its technical Epicurean vocabulary. There are, in fact, a number of examples of Lucretian prefixed words which may be considered calques of forms found in the texts of Epicurus. Many of the examples to be discussed below are noticed (usually quite briefly) in commentaries and elsewhere; my purpose in gathering and analysing them together is to demonstrate decisively that calquing of Epicurean prefixed forms is of fundamental importance as a method by which Lucretius generates his technical vocabulary and overcomes the perceived challenges of *egestas linguae*:

conviso ~ συνοράω: *conviso* is not a common verb in Latin, occurring before Lucretius only in Accius (once) and Cicero (twice, both in the *Aratea*). Like *viso*, it has two distinct meanings:³⁶ at Acc. *trag.* 598 R³ (= 572 Dangel) and Cic. *Arat.* 34.352 it means ‘visit’; at Cic. *Arat.* 34.245 and *DRN* 1.145, 2.357, 5.779 it refers to an act of perception. In the Cicero, and the latter two Lucretian instances, *conviso* means to look at something (in Cicero’s case, the sky) with a clear and unobstructed view. The remaining usage in *DRN*, however, is quite different: at 1.144–5, discussed at p. 12, we find a metaphorical usage of the verb which is unique in Latin: *clara tuae possim praepandere lumina menti, | res quibus occultas penitus convisere possis* (‘I may at last spread clear lights before your mind, by which you may see deeply into hidden things’). This usage of *conviso*, which suggests not the literal perception of objects but rather the metaphorical grasping of unseen realities, comes at the end of Lucretius’ introductory reflection on the poverty of the Latin language and is shortly followed by a statement of the first principle of nature: *nullam rem e nilo gigni divinitus umquam* (‘that nothing ever comes by divine power from nothing’, 1.150). This reflects a usage found in a corresponding passage of *Ep. Hdt.*, which follows immediately on the heels of Epicurus’ own introductory passage on language: ταῦτα δὲ διαλαβόντας συνορᾶν [δεῖ]³⁷ ἥδη περὶ τῶν ἀδῆλων. πρῶτον μὲν ὅτι οὐδὲν γίνεται ἐκ τοῦ μὴ ὄντος (‘having understood these things, it is necessary to consider unseen things. First, that nothing

³⁶ OLD s.v. *conviso*.

³⁷ Understanding the infinitive συνορᾶν as governed by the δεῖ of the previous sentence. Alternatively, we may adopt Cobet’s emendation of δεῖ to δεῖ.

comes from that nothing', *Ep. Hdt.* 38).³⁸ We may understand *convisere* at 1.145, then, as a loan-shifted calque based on Epicurus' use of *συνορᾶν* at *Ep. Hdt.* 38 (or in a corresponding passage of *On Nature*). While this meaning of *conviso* is indeed different from that employed by Cicero in his *Aratea*, the force of that poem as a relevant intertext may nonetheless be felt here when we recall that lines 1.144–5 come at the end of Lucretius' own response to Callimachus' *Epigram* 27 Pfeiffer, in praise of Aratus.

con- in fact proves to be a highly productive prefix for Lucretian calques on Epicurean terms prefixed with *συν-*:

coniunctum ~ **συμβεβηκός**: At *Ep. Hdt.* 40 Epicurus distinguishes between essential and accidental properties using the term *σύμπτωμα* to refer to accidental properties and the term *συμβεβηκός* to refer to essential properties. This is close to, but not precisely the same as, his usage at *Ep. Hdt.* 68–73, where *σύμπτωμα* continues to refer to accidental properties while a qualified form of *συμβεβηκός* (τὰ αἰδίου συμβεβηκότα) is used, along with other phrases, to refer to essential properties.³⁹ Demetrius Lacon is reported (Sextus, *M.* 10.220–4) as having said that *συμβεβηκότα* was the general term for both kinds of property, a claim which is borne out by the usage of bare *συμβαίνειν* at *Ep. Hdt.* 71.⁴⁰ Now, when it comes to naming the two different kinds of property, Lucretius' choice and deployment of vocabulary mirrors that of *Ep. Hdt.* 40 precisely, with essential properties referred to with *coniunctum* (1.449, 451) and accidental properties referred to with *eventum* (1.450, 458, etc.). One of these forms (*coniunctum*) can be classed as a calque, with the sense of 'joining' expressed by *συμβαίνω* being accurately conveyed by the passive participle of *iungo*.⁴¹ At the same time, however, Lucretius does not follow Epicurus in using the same term that he uses for essential properties (*coniunctum*) as a general term for both classes. This is no oversight on Lucretius' part, but

³⁸ See Clay 1983, 107, 126.

³⁹ See also Sedley's emendation (1988, 311 n. 27) *ὡς ἀεὶ συμβεβηκότα* at *Ep. Hdt.* 68 (where the transmitted text gives *ὡς ἂν εἰς ταῦτα βεβηκότα*).

⁴⁰ Sedley 1988, 311. Sedley (308) explains this dual use of *συμβεβηκότα* as follows: 'It is a familiar linguistic phenomenon that where a genus has two species, only one of which has its own class name, the genus name often stands in as a designation of the nameless species.'

⁴¹ Given the formal morphological resemblance between the terms *coniuncta* and *συμβεβηκότα*, I see no reason to doubt that Lucretius here is translating Epicurus' more narrow usage of the term as it is encountered at *Ep. Hdt.* 40 (*pace* Sedley 1988, 308). The point is that while Epicurus uses the term in two different ways (for genus and for species), Lucretius uses it only in one (for species).

should be thought of as a simplifying strategy intended to reduce the possibility of confusion between two different usages of the same word. As a result, Lucretius is left with no general term with which to refer to properties.

Despite the status of *coniunctum* as a technical term in these passages, *coniungo* does not retain this technical sense throughout the poem (a tendency we may identify in the cases of several other Lucretian calques). On three occasions in Book 3 we find a form of *coniunctus* used of the close connection between the rational and irrational parts of the soul (136, 159, 424), and on five further occasions in the same book we find it used of the connection between body and soul (348, 349, 556, 559, 579). On none of these occasions is Lucretius discussing an essential property. There is, nevertheless, a potential motive for Lucretius using the technical language of essential properties to describe the connection between body and soul: the defining aspect of an essential property is that it cannot be separated from the object to which it belongs *sine perituali | discidio* ('without fatal destruction', 1.451–2). The same is true of the connection between body and soul: for Lucretius, one cannot be separated from another without the destruction of both: *sic animi atque animae naturam corpore toto | extrahere haut facile est, quin omnia dissoluantur* ('so it is not easy to draw out the nature of rational and irrational soul from the whole body without everything being destroyed', 3.329–30). This notion is repeated at 3.348–9, which features two instances of *coniungo*: *ut videas, quoniam coniunctast causa salutis, | coniunctam quoque naturam consistere eorum* ('so you may see that since the cause of their well-being is conjoined, their nature also stands conjoined'), an idea which is repeated yet again at 3.579. So, in Book 3 Lucretius uses the term *coniunctus* in a non-technical sense (the soul is not a property of the body, nor vice versa), and in so doing suggests that the same kind of *sine qua non* relation that holds between essential properties and the objects to which they belong (as already established in Book 1) also holds between the body and the soul.⁴² The risk that a reader may misunderstand this usage of *coniunctus* in such a way as to assume that

⁴² Contrast the analysis of Garani 2007a, 182, who sees the non-technical usages of *coniunctus* in the poem as informing the reader's interpretation and understanding of the term's technical meaning:

Given the function of this metaphor in other contexts, where it is employed to denote various types of *indissoluble* links, when Lucretius applies it with reference to the relationship between the atomic compound and its properties, he helps his pupil to perceive the abstract idea that a property can never be separated and disjoined from the body without destructive dissolution.

the soul is an essential property of the body (or vice versa) is allayed by the passage 3.161–76, which proves that both mind and spirit are corporeal (and so cannot be properties, which are incorporeal).

consisto/consto ~ **συνίσταμαι**: Epicurus uses the verb *συνίσταμαι* to refer to the relation that holds between a compound and its constituent parts, whether those parts be atoms or other, smaller compounds. This verb can refer either to the state of being composed of parts, or to the process of being formed out of parts. We find it eleven times in extant Epicurus: twice in the *Letter to Herodotus* (69, 74), twice in the *Letter to Pythocles* (99, 106), once in a fragment of the *Symposium* preserved by Plutarch (*Adv. Col.* 1110a = 59 Usener), and (accepting supplements) six times in the fragments of *On Nature* Book 14.⁴³ The verb is often accompanied by *ἐκ/ἐξ* + genitive, referring to the parts out of which the compound in question is formed. The seemingly regular appearance of this verb in *On Nature* 14 is not surprising, given that book's apparent contents, namely 'the process by which atoms come together to produce aggregates'.⁴⁴ As an equivalent for this usage Lucretius uses either *consto* or *consisto* together with an *ex* + ablative phrase denoting the constituent parts of the compound, e.g. *ex alienigenis consistant ligna necessest* ('wood must be composed of materials other than wood', 1.872). By my count, this usage occurs seventeen times in *DRN*, seven of which are found in the long passage 1.635–920, Lucretius' refutation of rival theories of the elements (a passage which, according to the arguments of Sedley, draws on *On Nature* 14 and 15 as a source).⁴⁵

Of the two appearances of *συνίσταμαι* in the *Letter to Pythocles*, the latter concerns the formation of hail (106), and the former that of clouds (99). The formation of rain appears to be the context of the usage at *Nat.* 14 Col. 28.2 Leone.⁴⁶ This meteorological usage of *συνίσταμαι* is imitated by Lucretius twice, on both occasions referring to the formation of clouds: 6.455 *haec* [i.e. the bodies from which clouds are formed] *faciunt primum parvas consistere nubes* ('these first cause small clouds to form'), and 462 *cum consistunt nubila primum* ('when clouds first form'). In the former instance (6.455), the presence

In support of my interpretation (i.e. that the technical meaning informs and enriches the non-technical uses) I would stress that the reader's first encounter in *DRN* with any form of the word *coniunctus* occurs at 1.449, where it is introduced in its technical meaning.

⁴³ *Nat.* 14. b6, fr. 3.2, col. 6.3, 28.2, 31.4, 38.8 ed. Leone 1984.

⁴⁴ Montarese 2012, 61.

⁴⁵ Sedley 1998, 145–6, rejected by Montarese 2012, 56–146.

⁴⁶ Montarese 2012, 76.

of a translated Epicurean Greek form is underlined by the Greek syntax of *facere* + infinitive.⁴⁷

consentio/consensus ~ **συνπάθεια**: that *consensus* is an obvious potential rendering of *συνπάθεια* was clear to Cicero (*N.D.* 3.28, cited by Kenney 2014 ad 3.153): *consensus, quam συνπάθειαν Graeci vocant*. Although the word *consensus* certainly existed before Lucretius wrote *DRN*,⁴⁸ the sense ‘unity of sensation’ or ‘co-affection’ (rather than straightforward ‘agreement’) is very likely a Lucretian loan shift based on the Greek noun. At *Ep. Hdt.* 63–4 Epicurus uses *συνπάθεια* to refer to the correspondence of motions between the soul and the rest of the body that enables us to have sensation through the whole bodily compound.⁴⁹ Bailey (1926 ad *Ep. Hdt.* 64) correctly identifies *DRN* 3.335–6 as an equivalent argument in Lucretius. The existence of such a connection between the soul and the rest of the body is reiterated at 3.738–40, where (740) it is referred to as *consensus*. Given that this word bears the same meaning here as does *συνπάθεια* at *Ep. Hdt.* 64 we should not hesitate to accept it as a Lucretian calque.⁵⁰

Con- is not the only Latin prefix which is productive of Lucretian calques. Consider the following two examples, both of which use a privative *in-* prefix to mirror the structure of Epicurean terms with privative alpha:

infinitus ~ **ἄπειρος**: Epicurus uses *ἄπειρος*, whether as an adjective or a noun (τὸ ἄπειρον), in a number of different contexts, including discussions of the size of the universe (*KD* 13; *Ep. Hdt.* 41–2, 47, 60), of the sum of its contents (*Ep. Hdt.* 42, 73; *Ep. Pyth.* 88), of the limits of time (*KD* 19; *Ep. Men.* 124; *Sent. Vat.* 69), of the divisibility of bodies (*Ep. Hdt.* 56–7), of the number of atoms (*Ep. Hdt.* 42–3, 47), or of worlds (*Ep. Hdt.* 45; *Ep. Pyth.* 89), and in arguments concerning infinite regression (*Ep. Hdt.* 37; *Nat.* 25. *P. Herc.* 1056.7.2.8 / 697.4.1.3.1 Laursen (= Laursen 1997, 37; fr. 34.28.8 Arrighetti)). Only two of these uses of *ἄπειρος* (of the number of worlds and of infinite regression) have no

⁴⁷ For Lucretius’ use of causative *facere* + infinitive as a (particularly philosophical) Graecism, see the analysis of Vincent 2016, 299–300.

⁴⁸ See, e.g., Cic. *Fam.* 5.2.8, written in 62 BC.

⁴⁹ See Kerferd 1971, 95; von Staden 2000, 80–2.

⁵⁰ Gill 2006, 220 n. 35 on *DRN* 3.145–76 points out the preponderance of *con-*compounds in that passage in the light of the preponderance of *syn-*compounds at *Ep. Hdt.* 63–4. To the example of 3.740 we may add the hypotheticalal 3.800–2, *mortale aeterno iungere et una | consentire putare et fungi mutua posse | desiperes*, and the slightly different 3.168–9: *praeterea pariter fungi cum corpore et una | consentire animum nobis in corpore cernis*, whereon Ernout and Robin (1962 ad loc.) connect *consentire* to Epicurus’ *συνπαθές* at *Ep. Hdt.* 63.

direct equivalent in the Lucretian usage of *infinītus*; for the rest, we can identify a close relationship between the use pattern of ἄπειρος and the use pattern of *infinītus*, which is used in *DRN* of the size of the universe (1.967, 997, 1011, 1071, 2.1045, 1053, 5.414, 6.486), of the sum of its contents (1.621, 1036, 1051, 2.530, 544, 5.367, 408, 6.666), of the limits of time (1.233, 550, 558, 991, 1025, 2.255, 574, 5.188, 316, 378, 423), of the divisibility of bodies (1.616, 622), and of the number of atoms (2.525, 568).⁵¹ Most significant is the phrase *ex infīnito* ('out of the infinite'), which is used by Lucretius of the infinite 'supply' of bodies which the universe provides, and appears to correspond to the Epicurean phrase ἀπὸ τοῦ ἀπείρου (compare *Ep. Hdt.* 73 τοὺς κόσμους . . . γεγονέναι ἀπὸ τοῦ ἀπείρου to, e.g., *DRN* 1.996–7 *suppeditantur | ex infīnito cita corpora materiai*). The fact that *infinītus* could be deployed as a calqued rendering of ἄπειρος is further confirmed by Cic. *Fin.* 1.63, *neque maiorem voluptatem ex infīnito tempore aetatis percipi posse, quam ex hoc percipiatur, quod videamus esse finitum* ['Epicurus said that] no greater pleasure could be taken from a life infinitely long than is taken from this one, which we know to be finite', which is a partial rendering (see Madvig 1876 ad loc.) of *KD* 19: ὁ ἄπειρος χρόνος ἴσην ἔχει τὴν ἡδονὴν καὶ ὁ πεπερασμένος, ἐάν τις αὐτῆς τὰ ἐράτα καταμετρήσῃ τῷ λογισμῷ, 'Unlimited time brings the same amount of pleasure as limited time, if one measures the limits of pleasure by reason.' Cicero's rendering may well have been inspired by Lucretius' phraseology: for *ex infīnito tempore*, see *DRN* 1.550, 991, 2.574, 5.188, 316, 378, 423.

insensilis ~ ἀπαθής: although we do not encounter the adjective ἀπαθής in the extant texts of Epicurus himself, a number of *testimonia* testify to its status as a Epicurean technical term (following a similar usage in the Presocratics), qualifying ἄτομος or σῶμα.⁵² The adjective *insensilis* appears three times in the second book of *DRN* (866, 870, 888), and nowhere else in extant Latin literature. When used by Lucretius, it means precisely the same as does ἀπαθής in Epicurean *testimonia*, referring to insensate atoms which may or may not be components of sensate compounds. We have here, then, a Lucretian neologism calqued on the basis of the Epicurean privative form ἀπαθής.

⁵¹ See also the *capitulum* at 1.951: *ΤΟ ΠΑΝ ΑΠΕΙΡΟΝ*. For Lucretius' philosophical treatment of the infinite, considered in the light of that of Epicurus, and for a close consideration of his related vocabulary and imagery, see Clay 1983, 131–45.

⁵² Aët. 286.12 Diels = 267 Usener (Ἐπίκουρος . . . ἔφη); [Plut.] *Plac. Phil.* 286.15 Diels = 270 Usener (Ἐπίκουρος . . . ἔφη); also *Simpl. In Cael.* 242.19 Heiberg = 284 Usener (οἱ περὶ Λεύκιππον καὶ Δημόκριτον ὑπετίθεντο πρὸ αὐτοῦ γεγονότες καὶ μετ' αὐτὸν Ἐπίκουρος); Galen *De Elem. Sec. Hipp.* 1.418 Kühn = 288 Usener; *Simpl. In Cat.* 431.21 Kalbfleisch = 288 Usener (καὶ οἱ περὶ Δημόκριτον δὲ καὶ ὕστερον οἱ περὶ Ἐπίκουρον).

Finally, to these we may add the following four examples, all of which utilize directional prefixes in order to render Epicurus' terminology into Latin:

dissilio ~ ἀποπάλλω: forms of *dissilio* appear eight times in *DRN*; on five of those occasions (1.385, 291; 2.87, 106; 5.362) it is used to describe atoms springing apart after a collision (*concursum*, 384). To this we may compare the Epicurean use of ἀποπαλμός at *Ep. Hdt.* 44: ἡ τε στερεότης ἡ ὑπάρχουσα αὐταῖς κατὰ τὴν σύγκρουσιν τὸν ἀποπαλμὸν ποιεῖ ('the atoms' solidity causes them to rebound as a result of a collision').⁵³ Although ἀποπαλμός appears only here in extant Epicurus, the fact that atomic separations are described using ἀποπαλμός and ἀποπάλλω in other Epicurean *testimonia* suggests its status as a technical term (again, on the basis of a similar usage in the Presocratics).⁵⁴

deridiculus ~ καταγέλαστος: καταγέλαω and its cognates are used of ridicule in both Old and New Comedy, and find something of an equivalent in the Plautine noun *deridiculum* (e.g. *Amph.* 682; *Mil.* 92). The same term is found at *DRN* 3.777 *deridiculum esse videtur*... ('it seems to be ridiculous...'), a usage which may be explained less by reference to earlier Roman texts than by reference to Epicurus' own usage of καταγέλαστος, found in a syntactically equivalent context at *Nat.* 28 fr. 13. col. 5.12 sup. Sedley: καταγέλαστον γὰρ [δὴ] τι καὶ τοῦτ' ἐστίν, ὅταν... ('for this too is ridiculous, whenever...').⁵⁵

adopinor ~ προσδοξάζω: the Epicurean term προσδοξάζω occurs twice in the transmitted text of *Ep. Hdt.*, on both occasions referring to the addition of opinion to the evidence we receive via the senses: τὸ δὲ ψεῦδος καὶ τὸ διημαρτημένον ἐν τῷ προσδοξαζομένῳ αἰεὶ ἐστίν ('falsehood and error are always located in added opinion', 50); τὸ γὰρ προσδοξαζόμενον περὶ τοῦ ἀοράτου... οὐκ ἀληθές ἐστίν ἐπὶ τῶν τοιούτων ('for the added opinion concerning the unseen... is not true in such cases', 62). We find a strikingly similar usage of the (hapax) *adopinamur* at 4.816–17: *deinde adopinamur de signis maxima parvis | ac nos in fraudem induimus frustraminis ipsi* ('Moreover, we form significant additional opinions on the basis of small signs, and lead ourselves into the delusion of self-deception').⁵⁶ There can be no doubt that Lucretius himself coined this word in order accurately and closely to render Epicurus' verb into his own language. Elsewhere he uses a phrase to the

⁵³ See Fowler 2002 ad 2.87, who also adduces *resultant* at 2.98.

⁵⁴ *Simpl. In Cael.* 242.21–9 Heiberg = 284 Usener; *Galen De Elem. Sec. Hipp.* 1.418 Kühn = 288 Usener.

⁵⁵ See also *Nat.* 28 fr. 13 col. 9.12 sup. Sedley: ἅπαντες κ[α]ταγελῶσ[ι]ν...

⁵⁶ See Usener 1977 s.v. *προσδοξάζειν*; Bailey 1947 ad 4.816; Laursen 1995, 58.

same effect: *propter opinatus animi quos addimus ipse* ('on account of the opinions of the mind which we add ourselves', 4.465).

aditus, abitus ~ *πρόσδος, ἄφοδος*: Epicurus introduces the concept of the atom at *Ep. Hdt.* 54 with the assertion that atoms themselves do not change, and that compounds change simply due to the addition, subtraction, or rearrangement of their component atoms: αἱ δὲ ἄτομοι οὐδὲν μεταβάλλουσιν, ἐπειδὴ περ δεῖ τι ὑπομένειν ἐν ταῖς διαλύσεσι τῶν συγκρίσεων στερεὸν καὶ ἀδιάλυτον, ὃ τὰς μεταβολὰς οὐκ εἰς τὸ μὴ ὄν ποιήσεται οὐδ' ἐκ τοῦ μὴ ὄντος, ἀλλὰ κατὰ μεταθέσεις ἐν πολλοῖς, τινῶν δὲ καὶ προσόδους καὶ ἀφόδους ('But the atoms do not change at all, since something must remain solid and indivisible amid the dissolution of compounds, so as to ensure that the changes are neither into the non-existent nor out of the non-existent, but in many cases the results of transpositions, and in others the result of additions and subtractions'). Lucretius makes much the same point at 1.675–8, in the context of an argument against Heraclitean monism: *nunc igitur quoniam certissima corpora quaedam | sunt, quae conservant naturam semper eandem, | quorum abitu aut aditu mutatoque ordine mutant | naturam res et convertunt corpora sese...* ('Now, then, since there are certain fixed bodies whose nature never changes, and by the subtraction or addition of which, and the transposition of their order, things change their nature and bodies transform themselves...'). For Lucretius here, as for Epicurus at *Ep. Hdt.* 54, three things can account for changes in compound bodies: rearrangement of atoms, addition of atoms, and subtraction of atoms. Rearrangement is described using a two-word phrase (*mutato ordine*) which accurately renders Epicurus' *μεταθέσεις*. Addition and subtraction are both described using calques of Epicurus' own words: *aditu* ~ *πρόσδους*; *abitu* ~ *ἀφόδους*, with Lucretius' ablatives replacing Epicurus' phrases in *κατά* + accusative.⁵⁷

We have now considered the following thirteen pairs of prefixed words, the Latin forms of which are to be considered morphological calques of the 'equivalent' Epicurean form:

abitus ~ *ἄφοδος*

aditus ~ *πρόσδος*

adopinor ~ *προσδοξάζω*

coniunctum ~ *συμβεβηκός*

consentio/consensus ~ *συμπάθεια*

consisto/consto ~ *συνίσταμαι*

⁵⁷ See Bailey 1947 ad loc.

conviso ~ συνοράω
 deridiculus ~ καταγέλαστος
 dissilio ~ ἀποπάλλω
 iniectus ~ ἐπιβολή
 infinitus ~ ἄπειρος
 insensilis ~ ἀπαθής
 subiungo ~ ὑποτάσσω

Alongside Sedleian ‘diversification’, calquing should be considered a strategy of central importance to the Lucretian project of rendering Greek Epicurean vocabulary into Latin, and as a major element of the lexical creativity of *DRN*. We may note here that, while diversification is the principle guiding the Lucretian translation of two Epicurean concepts of major importance and potential strangeness (atoms and *simulacra*), the calqued prefixed forms collected and discussed above refer in a number of cases to the relations and processes which hold and operate between atoms and their compounds. This suggests that while Lucretius is keen to translate very basic Epicurean concepts (like atoms, *simulacra*) with a range of metaphors which will be particularly clear and appealing to a Roman neophyte readership, at the same time he takes great care to ensure that the terms he uses to describe the interrelations between those major concepts remain as close as possible, in both morphological and semantic terms, to the original Epicurean terminology. The twin strategies of diversification and calquing work side by side in order to provide a description of an Epicurean universe which is at once clear, appealing, and precise.

Earlier in this book I discussed two pairs of morphologically ‘equivalent’ prefixed forms: *iniectus* ~ ἐπιβολή (pp. 75–80) and *inmundus* ~ ἄκοσμος (p. 168). In both cases I suggested that despite the clear morphological resemblance there nonetheless exist real semantic differences: ἐπιβολή in Epicurus means something quite different from *iniectus* in Lucretius, and the logic of 4.1160 (*inmundum et fetidum acosmos*) requires the meaning of *inmundum* to be sufficiently distinct from the meaning of ἄκοσμος for it to be incorrect to apply both terms simultaneously to one woman. Both cases, therefore, suggested that, for Lucretius, morpho-lexical equivalence does not guarantee semantic equivalence. The prefixed forms discussed in this section offer much more secure examples of semantic equivalence between Lucretius’ technical terms and those of Epicurus. At the same time, it should be noted that in many cases Lucretius

uses these forms in multiple different senses, only one of which can usually be considered semantically equivalent to the Epicurean term in question.

6.3. CONCLUSION

I suggested in Section 6.1 that the high frequency of compounds in *DRN* was the result not only of the direct influence of the text of Empedocles but also of two further factors: first, the deep influence of the language of early Latin poetry; and second, a thorough Lucretian engagement with other, less ‘philosophical’ Greek poetic texts. It should now also be clear that the influence of Greek forms can be detected not only in the compounds of *DRN* but also in the prefixed forms which are calqued directly from the text of Epicurus. What explains the fact that the language of *DRN* is so amenable to the influence of the compound and prefixed forms of other texts? An answer may be provided by the combination of Lucretian anxiety about the lexical resources of Latin, as expressed in his discussions of *egestas linguae*, and the Epicurean insistence on the importance of the role of enlightened individuals in helping to form and develop the technical vocabularies of their own language. As we saw in Section 1.4, Epicurus’ account of the second stage of language development at *Ep. Hdt.* 76 stresses the importance of the creative lexical activity of a certain group of enlightened individuals (the *συνειδότες*). In Chapter 4 I presented evidence to suggest that Lucretius shows himself to be aware of the importance of this late creative stage for the formation of his own technical vocabulary. We should understand Lucretius’ predilection for calquing in much the same way: as an implicit acknowledgement of the continuing importance of linguistic creativity to the Epicurean project.

Conclusion

‘Also, men with understanding (συνειδότες), introducing certain things that were previously not understood (οὐ συννορώμενα), recommended certain utterances.’

So Epicurus describes one aspect of the second, rational stage of linguistic development at *Ep. Hdt.* 76. From the perspective of Lucretius, writing in the middle of the first century BC, the process of linguistic improvement and augmentation outlined here had not yet come to an end. This is demonstrated not only by his own creative eloquence and linguistic exuberance—which went on to leave a permanent mark on the style of Latin philosophical writing—but also by his three explicit invocations of the alleged problem of *egestas linguae*. Epicurus had previously cast himself in much the same role, choosing the same verb (συννορᾶν) to refer to linguistic innovators at *Ep. Hdt.* 76 and for the understanding contained in his own writings at *Ep. Hdt.* 38. This is, of course, the verb that is calqued by Lucretius at *DRN* 1.145 (*convisere*), used there of the philosophical understanding he promises to Memmius.

One major strand of the Epicurean theory of language—such as we are able to construct it—was historical. Epicurus was interested not only in how language is and should be used now, but in how it developed from its earliest natural origins. Almost every discussion in this book has, in one way or another, concerned the historical development of the linguistic forms deployed by Lucretius in *De Rerum Natura*. Metaphor consists in the giving of new purpose to old forms, and one feature of Lucretius’ metaphorical practice, as discussed in Section 3.5, is the contrast and juxtaposition of new and old meanings, such as to lay out on the page demonstrations of the

recent history of the language. Much the same point can be made for Lucretian etymology, which, we had reason to conclude, is primarily concerned with diachronic, derivational relations between words. Lucretius' interest in Latin's relation to the Greek language is profound, and once again we are dealing here with diachronic questions: how are Latin compounds related to their Greek equivalents? How does the assimilation of Greek words into Latin morphology affect their communicative force and significance?

The story of the development of language, on the Epicurean model, is neither straightforward nor predictable: hand in hand with the human potential for rational thought comes the potential for imprecision, error, and folly, and this, of course, extends into the linguistic realm, as we saw most clearly perhaps with the delusions of the men in love. What might constitute misinterpretation for one reader, however, may be considered reinterpretation by another: Lucretius' own appropriation and reworking of Epicurus' ἐπιβολὴ τῆς διανοίας as *animi iniectus*, for example, is in one sense catachrestic—an *abutio* of language, to use the Roman terminology—yet in another sense bold and innovative, transforming a fairly technical Greek notion into a striking Latin metaphor with wide application and relevance in the figurative economy of his text. Finally, moving out beyond the boundaries of *DRN*, the post-Lucretian repurposing of the imagery of *foedera* and *machina mundi*, culminating in the glyconics of Boethius, shows that the Lucretian inheritance of later Latin philosophical writing is not limited to certain forms or a certain style, but extends to an ethos of creative imitation and appropriation, as the Lucretian language of nature is received, reimagined, and redirected.

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Index Locorum

- Accius
praet. 20 R³ 177
praet. 41 R³ 132
trag. 296 R³ 46
trag. 547 R³ 176
trag. 603 R³ 176
- adnotationes super Lucanum*
 1.569 (p. 33 Endt) 141
- Aeschylus
Ag. 870 162, 180
- Aëtius
 3.3.9 Diels 127
 3.16.3 Diels 72
- Ammonius
In Int. 34.10–35.13 16
- Antipater of Sidon
A.P. 7.14.4 9
- Aristotle
Cael. 270b 135
Cael. 302a 135
De Gen. et Corr. 315b 120
Met. 985b 120
Meteorol. 357a 72
Poet. 1457b 50, 59
Poet. 1458a 50
Rh. 1404b 50
Rh. 1405a 52
- Asclepiades of Samos
A.P. 7.11 11
- Ausonius
Epistle to Theon 27.15.38 Green 148
- Boethius
Phil. Cons. 2 m.8.1–21 110–11
- Caesar
De Anal. fr. 31 Garcea 5
- Callimachus
Ep. 6.1 Pfeiffer 11
Ep. 27 Pfeiffer 12, 184
Ep. 28 Pfeiffer 9
Hec. fr. 74.15 Hollis 151
Hec. fr. 90.1 Hollis 134
Hymn 1.52–4 134
- carmina Marciana* fr. 1.6 Morel 179
- Catullus
 10 13
- Cicero
Ac. 1.3 6
Ac. 1.4 6
Ac. 1.8 7
Ac. 1.10 7
Ac. 1.41 51
Arat. 34.41 84
Arat. 34.88 181
Arat. 34.121–2 176
Arat. 34.245 84
Arat. 34.394 102
Arat. Prog. 4.10–11 176
Brut. 247 14
carm. fr. 6.36 Blänsdorf 173
Fin. 1.1 6, 7, 8, 11
Fin. 1.10 7
Fin. 1.63 188
Fin. 2.6 63
Fin. 2.15 6
Fin. 2.48 38, 39–40, 43
Fin. 3.5 4, 8
N.D. 1.8 3–4, 8
N.D. 1.19 109
N.D. 1.44 51
N.D. 1.50 91
N.D. 1.54 77
N.D. 1.63 154
N.D. 3.28 187
Off. 1.1 7
De Or. 3.149 62
De Or. 3.155 52, 59, 64
De Or. 3.157 52, 59
De Or. 3.161–2 59
Orat. 82 52
Orat. 92 52
Orat. 93 59
Sest. 123 177
Tim. 9 109
Tim. 17 100
Tusc. 1.1 6
Tusc. 1.19 61
Tusc. 1.22 56

- Cicero (*cont.*)
Tusc. 1.48 137
Tusc. 1.52 99
Tusc. 5.79
- Cinna
 fr. 11 Blänsdorf 12–14
- pseudo-Clement of Rome
Recog. 8.15 56
- Commentum in Platonis Theaetetum*
 col. 22.39–42 Bastianini and Sedley 37
- Consentius
De Barb. 5.390–1 GLK 148
- Crinagoras
A.P. 9.545 13
- Demetrius Lacon
P. Herc. 1012 col. 67 Puglia 16, 32
- Diogenes Laertius
 9.51 154
 10.6 54
 10.13 49–50, 63
 10.31 77
 10.33 21, 36–8, 43, 60, 113
 10.66 46
- Diogenes of Oinoanda
 fr. 12 Smith 119
 fr. 12 col. 2.9–10 Smith 23
 fr. 13 col. 4.4 Smith 102
 fr. 37 col. 1.5–7 Smith 46
 fr. 72 Smith 94
 New Fragment 192 40–1
 New Fragment 214 94
- Dionysius of Halicarnassus
Comp. 21 50, 53
- Dionysius Periegetes
 1149–51 127
- Empedocles
 B27 DK 135
 B37 DK 135
 B84 DK 97
 B100 DK 97
P. Strasb. gr. Inv. 1665–1666 a (ii) 26 173
- Ennius
Ann. 58 Sk. 180
Ann. 164 Sk. 80
Ann. 165 Sk. 80
Ann. 198 Sk. 176
- Ann.* 225–6 Sk. 80
Ann. 304 Sk. 182
Ann. 371 Sk. 148–9
Ann. 376 Sk. 148
Ann. 483–4 Sk. 181
Ann. 510 Sk. 179
Ann. 554 Sk. 173
Ann. 592 Sk. 180
spuria 5 Sk. 148
trag. 98 Jocelyn 137
trag. 283 Jocelyn 137
- Epicurus
Ep. Hdt. 35 76, 77
Ep. Hdt. 37 30, 155
Ep. Hdt. 37–8 35–6, 43, 50, 51, 69, 113
Ep. Hdt. 38 30, 59, 60, 63, 77, 102, 183–4, 193
Ep. Hdt. 39 89
Ep. Hdt. 40 45, 47, 184
Ep. Hdt. 44 189
Ep. Hdt. 46 71
Ep. Hdt. 50 168, 189
Ep. Hdt. 50–1 167
Ep. Hdt. 51 77
Ep. Hdt. 54 190
Ep. Hdt. 61 71
Ep. Hdt. 62 77, 90, 189
Ep. Hdt. 63 30, 90
Ep. Hdt. 63–4 187
Ep. Hdt. 67 39, 45
Ep. Hdt. 68–73 184
Ep. Hdt. 70 39
Ep. Hdt. 71 47
Ep. Hdt. 73 188
Ep. Hdt. 75 17–26, 27, 30, 122
Ep. Hdt. 76 1, 2, 27–31, 51, 117, 124, 126, 192, 193
Ep. Hdt. 77 69
Ep. Hdt. 83 76, 77
Ep. Men. 123 114
Ep. Men. 123–4 39
Ep. Men. 132 18
Ep. Pyth. 89 45, 71
Ep. Pyth. 90 102
Ep. Pyth. 96 71
Ep. Pyth. 99 30
Ep. Pyth. 105 71
Ep. Pyth. 106 71
Ep. Pyth. 116 30
K.D. 16 18
K.D. 19 188
K.D. 24 77

- K.D.* 37–8 114
Nat. 25 Laursen 1997, 28 = 34.24
 Arrighetti 25
Nat. 25 Laursen 1997, 32 = 34.26
 Arrighetti 25
Nat. 28 fr. 8 col. 4 Sedley 45
Nat. 28 fr. 13 col. 2–3 Sedley 55–6
Nat. 28 fr. 12 col. 3 Sedley 39, 45
Nat. 28 fr. 13 col. 5 Sedley 29, 39, 53,
 63, 155, 189
Nat. 28 fr. 13 col. 7 Sedley 38, 43
Nat. 28 fr. 13 col. 9.4–3 inf. Sedley
 39, 189
- Erotian
 Hippocratic Lexicon p. 7.21
 Nachmansohn 37
- Euripides
 Chrysippus fr. 839 66
 Hipp. 73–4 10
 Med. 1169 152
 Or. 874 90
 fr. 502 Kannicht 89
 fr. 941 Kannicht 107
- Festus
 33.26–7 Lindsay 90
 158.19–20 Lindsay 145
 206.17–18 Lindsay 149
 516.23–4 Lindsay 80
- Galen
 De Nat. Fac. 2.45 Kühn 128
 De Sympt. Caus. 7.157 Kühn 152
- Gellius
 2.22.30 136
- Heraclitus
 B31 DK 127
- Hermarchus
 fr. 34.9 Longo Auricchio 30
 fr. 34.10 Longo Auricchio 19, 28
- Hesiod
 Op. 563 66
 Sc. 236 153
- Hippocrates
 Epid. 6.3.11 152
- Homer
 Il. 1.544 180
 Il. 5.310 150
 Il. 13.394 150
 Il. 15.627 152
 Il. 17.522 149–50
 Il. 17.542 149
 Od. 2.3 150
 Od. 4.198 150
 Od. 6.42–5 173
 Od. 7.100–2 93
 Od. 12.85–7 134
- Hyginus
 Astr. 2.4.6 Le Boeuffle 136
- Isidore
 Orig. 6.16.12 90
 Orig. 17.2.1 132
 Orig. 20.2.1 133
- pseudo-Julius Rufinianus
 De Schematis Lexeos 56.9–12
 Halm 151
- Leonidas of Tarentum
 A.P. 9.25 12
- Lucilius
 321 M 164
 540–6 M 170
 983 M 148
 997 M 148
 1137 M 148
- Lucretius
 1.1 179–80
 1.3 175, 178–80
 1.54–61 75, 87
 1.55 84
 1.58–61 44
 1.64–5 140
 1.66–77 9, 79–82
 1.67 78
 1.77 91
 1.80–2 81, 82
 1.85 161
 1.86–7 153
 1.98–9 144
 1.102–3 78
 1.109–10 78, 82
 1.117–18 9
 1.120–1 137
 1.123 86
 1.131 46
 1.132 71
 1.136 84
 1.136–9 155
 1.136–45 1–14
 1.140–5 11–14, 84
 1.144–5 31, 84, 183–4, 193
 1.150 183

Lucretius (*cont.*)

- 1.156-9 85
 1.182-3 89
 1.196-8 120
 1.219-20 89
 1.223 87
 1.282 102
 1.298-9 163
 1.315 153
 1.329-69 44
 1.329-97 87, 112
 1.334-9 112-15
 1.358-63 113-15
 1.368-9 44
 1.369 45
 1.402 71
 1.407-9 83
 1.418 11
 1.424 84
 1.426 45
 1.439 45
 1.449-63 114
 1.451-2 185
 1.452 148
 1.454 114
 1.459 45
 1.462-82 162
 1.473-7 156, 158, 159
 1.476-7 162
 1.481 45
 1.483-634 87
 1.484 89
 1.507 45
 1.584-92 72-5
 1.586 115
 1.596 91
 1.639 84
 1.651 148-9
 1.655-64 82
 1.675-8 190
 1.772-5 134
 1.805-6 132
 1.814-29 123
 1.823-9 120
 1.832 2, 3
 1.830-3 4-5
 1.872 186
 1.907-14 122
 1.912-14 120
 1.919-20 104
 1.922 84
 1.926-30 9-10
 1.931-2 140
 1.933 84
 1.933-4 91
 1.937-8 101
 1.943-50 92
 1.945-6 92, 182
 1.947 10, 92, 101
 1.948-50 84-5
 1.986-7 71
 1.996-7 188
 1.1052-8 129
 1.1060 86
 1.1074 45
 1.1114-7 83
 1.1116-7 88
 2.1-8 92-6
 2.8 12
 2.18-19 131
 2.23-6 93
 2.25 164
 2.32-3 132
 2.55-6 105
 2.59-61 101
 2.80-5 145
 2.82 141, 160
 2.86 71
 2.89-90 84, 85
 2.109-24 85-8
 2.114-24 97-8
 2.118-20 90, 95
 2.125-41 98
 2.132 98
 2.145 141
 2.154 148
 2.254 91
 2.381-477 121
 2.394 148
 2.398 122
 2.400-1 122
 2.408-43 121
 2.465 72
 2.472 67
 2.547-64 93-5
 2.569-74 95
 2.600-43 160
 2.633-7 134
 2.655-60 67-9, 169
 2.661 178
 2.688-99 120
 2.718-19 91
 2.739-45 76-9
 2.748 78

- 2.847-9 163
 2.865-7 103
 2.865-990 103-5
 2.867-8 78
 2.881-2 104
 2.916-22 105
 2.931-6 105
 2.963-72 104-5
 2.973-90 104
 2.976-7 104
 2.991-8 64-9
 2.991-1001 66
 2.1013-22 120
 2.1040-7 76-9, 80
 2.1080-1 75, 172-3
 2.1083 175
 3.6-7 151, 155
 3.9-13 10-11
 3.11 181
 3.18-22 173
 3.21 172-3
 3.39-40 126
 3.79-82 136-7
 3.87-8 105
 3.91-3 101
 3.94 46, 49
 3.94-416 47
 3.96-7 62
 3.117 46, 49
 3.121-3 62
 3.124-7 62
 3.130-5 61-3
 3.131 161
 3.139 141
 3.143 47
 3.150 47
 3.152 131
 3.168-9 187
 3.175 47
 3.221 67
 3.231-42 56
 3.237 47
 3.238-44 57-8
 3.260 2, 3
 3.275 47
 3.277 47
 3.280-1 47
 3.288-322 25, 57
 3.307-22 25
 3.321 25
 3.329-30 185
 3.335-6 187
 3.348-9 185
 3.363-4 100
 3.400 99
 3.417-24 47-9
 3.421 38, 43, 48-9
 3.425-829 47
 3.434-444 98
 3.463-4 141
 3.467 141
 3.489 152
 3.502 100
 3.555 99
 3.558-79 48
 3.642 181
 3.670-8 137-8
 3.675-6 139
 3.687 91
 3.708 47
 3.738-40 187
 3.777 144, 189
 3.793 99
 3.800-2 187
 3.828-9 137
 3.847-60 138
 3.936-7 99
 3.1029-30 154
 3.1039-41 139
 3.1070 100
 4.1-5 9-10
 4.6-7 140
 4.8 84
 4.8-9 91
 4.18-25 92
 4.26-44 45
 4.30 45
 4.33 71
 4.45-53 45
 4.50 45
 4.180 11, 92, 182
 4.247 148
 4.256-8 163
 4.309 71
 4.465 190
 4.478-521 88
 4.513-21 101
 4.580 181
 4.589 133
 4.727 71
 4.739 87
 4.816-17 189
 4.832 148
 4.909 11, 92, 182

Lucretius (*cont.*)

4.962 142
 4.966-70 142
 4.1049-52 100-1
 4.1123-32 162
 4.1149-54 167
 4.1156 168
 4.1160 191
 4.1160-9 165-70
 4.1162 158
 4.1260 133
 5.1-2 80
 5.22-36 161-2
 5.22-38 153
 5.33 153
 5.54 84
 5.58 91
 5.90 91
 5.91-6 108-111
 5.99 78
 5.110-45 107-8
 5.114-16 140
 5.281 101, 102
 5.299 148
 5.318-19 177
 5.318-23 66
 5.336-7 9
 5.345-50 99-100
 5.380-415 160-1
 5.432-508 135
 5.448 134-5
 5.457-9 135
 5.459 181
 5.467-79 106-8
 5.487 72
 5.498 135, 181
 5.590-603 101-2
 5.742 136
 5.745 172
 5.789 175, 176
 5.795-6 65-9
 5.821-5 65-9
 5.864-7 175-8
 5.1007-8 137
 5.1022-3 28
 5.1028-9 20
 5.1028-32 23-6
 5.1028-90 16, 125
 5.1033 67
 5.1041-55 119
 5.1058 23

5.1056-62 23
 5.1105-7 30
 5.1143-7 30
 5.1264-6 143-4
 5.1301 181
 5.1367-9 132
 5.1456-7 83
 6.32 78
 6.35-6 105
 6.39-41 101
 6.42 11
 6.66 91
 6.94 180
 6.152-5 182
 6.375-6 132
 6.379 181
 6.394-5 148
 6.423-5 127
 6.428 127
 6.442 127
 6.455 186
 6.456 148
 6.462 186
 6.489-91 132
 6.498 78
 6.540-1 119-20
 6.639-45 134
 6.665-72 134
 6.701-2 161, 164
 6.711 154, 156
 6.716 136
 6.730 136
 6.740-6 125-6
 6.906-9 63, 128
 6.908 161
 6.917-97 128
 6.921-7 145
 6.1044 128
 6.1190 152
 6.1227-8 154

Manilius

Astr. 1.736 160

Marius Victorinus

6.10.7-8 *GLK* 144

Meleager of Gadara

A.P. 4.1 10-11, 182

A.P. 12.257 10-11

Nigidius Figulus

fr. 104 Swoboda

- Nonius
 14.4–8 126
 123.33 101
 426.25–9 46
- Origen
C. Cels. 1.24 16, 17, 32
- Pacuvius
trag. 2 R³ 176
trag. 86–7 R³ 66, 107, 177
trag. 90–2 R³ 66
trag. 148 R³ 137
trag. 330 R³ 178
trag. 408 R³ 66, 176
- Paulus Diaconus (*Excerpta ex libris Festi*)
 69.20 Lindsay 143
 102.19 Lindsay 137
 151.2 Lindsay 141
- Philo
Aet. 117–49 100
- Philodemus
Mort. col. 4.39.1–6 Henry
Piet. 213–14 Obbink 39
Piet. 733–4 Obbink 30
Poem. 5, *PHerc.* 403 fr. 5 col. 1 Mackey 30–1
Rh. 2, col. 30 Longo Auricchio 50, 67
Rh. 4, 1.174–5 Sudhaus 50, 51
Rh. 4, 1.177 Sudhaus 52, 59
Sign. col. 1.26–8 De Lacy and De Lacy 128
Sign. col. 33–4 De Lacy and De Lacy 98, 113
- Plato
Cra. 384a 17
Cra. 385d 21
Cra. 390d 17
Cra. 394e–396c 116
Cra. 414c 116
Cra. 419bc 118
Cra. 421c 116
Cra. 421de 117
Cra. 422ab 117
Cra. 422d–424a 17
Cra. 427a 118
Cra. 427c 117
Cra. 430a–431c 17
Phd. 85e–86d 61
- Tim.* 23a 100
Tim. 33a 100
Tim. 40ab 107
- Plautus
Curc. 116–17 176
Trin. 833 149–50
- Pliny the Elder
Dubius Sermo fr. 60 Mazzarino 157
HN 2.8.1 168
HN 2.133 127
HN 4.1.2 126
- Plutarch
Adv. Col. 1118de 56, 57
Epit. 908d 66
Non Posse 1090e 94
- Priscian
Ars 2.26 GLK 142
Ars 2.209–10 GLK 157
Ars 3.239 GLK 6
Ars 3.182 GLK 142
- Proclus
In Cra. 17 16, 20, 32
- Protagoras
 B4 DK 154
- Ptolemy
De Crit. 4.2–6 27
- Quintilian
Inst. 1.5.58–64 157
Inst. 1.5.63–4 157
Inst. 2.14.2 5
Inst. 8.3.33 5
Inst. 8.6.8 59
Inst. 8.6.16 59
Inst. 8.6.34 67
Inst. 12.10.34 4
Inst. 12.10.36 8
- Rutilius Lupus
 8.14 Halm 97
- Sallust
Iug. 113 5
- Seneca
Ep. 58.7 6
NQ 3.15.7 72
NQ 5.13.3 127
- Servius
A. 3.139 154
A. 3.442 126

Servius (*cont.*)

- A. 4.38 151
- A. 6.107 126
- A. 6.747 126
- A. 8.187 140
- A. 12.419 164
- Ecl.* 6.31 126

Servius Auctus

- A. 1.394 135

Sextus Empiricus

- M. 1.142–3 16
- M. 1.143 21
- M. 10.2 124
- M. 10.220–1 47
- M. 10.220–4 184
- M. 10.221–1 114
- M. 10.240 113

Simplicius

- In De Cael.* 119.2 Heiberg 135

Sophocles

- fr. 748 Radt 126

Stobaeus

- Ecl.* 1.49.1b Wachsmuth 56, 57

Suetonius

- Gramm.* 6 145

Theocritus

- 5.136–7 151
- 7.41 151
- 15.142 153–4

Tryphon

- Trop.* III 193.4–7 Spengel 52

Varro

- L. 5.1–3 125
- L. 5.2 126
- L. 5.6 129
- L. 5.19 137
- L. 5.87 95
- L. 5.123 133
- L. 6.3 125
- L. 6.7 132
- L. 6.43 90
- L. 6.45 131
- L. 6.48 131
- L. 6.79 143
- L. 7.42 137
- L. 7.72 132
- L. 8.58 5
- L. 8.72 157
- L. 10.70 157
- L. 10.71 164
- Menipp.* fr. 32 Cèbe 46
- Menipp.* fr. 420 Cèbe 168

Virgil

- A. 2.524–58 81
- A. 3.342 134
- A. 6.242 127
- A. 6.467 153
- A. 7.634 144
- A. 9.794 153
- A. 10.145 129
- A. 12.419 164

Xenophon

- Hell.* 1.3.1 127

General Index

- Accius 46, 132, 175–8, 183
 Aelius Stilo 132
 Aemilius Opillus 132, 145
 Aëtius 56–57, 66, 72
 Afranius 176
amicitia 8, 11, 14, 182
 Ammonius 16
 Anaxagoras 5, 104, 122, 135
 Aratus 12–13, 84, 134, 184
 archaism 80, 101, 148–9, 151, 157,
 161–2, 164, 175–81
 Aristophanes of Byzantium 49–50
 Aristotle 52, 56, 59, 72, 89, 120, 135
 Atherton, Catherine 21–3, 33–5
 Ausonius 148

 borrowing 158–9
 Brunschwig, Jacques 20, 22, 27, 19

 Caesar, Julius 5–6, 157–8
 Callimachus 9–14, 84, 134, 149–50,
 151–2, 184
 calque 10–1, 48–9, 62, 76–7, 114, 126,
 130, 140, 152, 155, 172–91
carmina Marciana 179
 Catullus 13, 153
 Cicero, Marcus Tullius 83, 89, 100, 109,
 132, 137, 154, 160, 188
 Aratea 84, 175, 176, 181, 183–4
 as reader of Lucretius 73, 77
 Consulatus Suus 160, 173
 on *egestas linguae* 3–8
 on Epicurean language theory 38–9
 on Epicurus 51
 on Memmius 14
 on metaphor 52, 59
 on translation 174, 187
 Cinna, Gaius Helvius 12–14
 clarity 37–9, 49–51, 84, 88, 91–2
 code-switching 157–9, 161, 165–70
 colloquialism 39, 101, 154, 166, 169
 Cynics 161

 Demetrius Lacon 16, 32, 47, 184
 Democritus 139

 demythologisation 173–4, 181–2
 Deufert, Marcus 57
 Diogenes of Oinoanda 23, 40–1, 46, 94,
 102, 119
 dreams 142–3, 177
 dust 85–8, 90, 98

egestas linguae 1–8, 15, 27–31, 170–1,
 172, 183, 192, 193
 Empedocles 71–2, 91, 97, 123, 135, 162,
 173, 174–80
 Ennius 79–82, 137, 148–9, 173, 176,
 179–80, 182, 192
ἐπιβολὴ τῆς διανοίας 51, 76–8, 88,
 183, 191
 Erotian 37
 error, Epicurean understanding
 of 167–9, 189
 error, linguistic 27, 34, 194
Etymologicum magnum 128
 etymology (ancient) 116–46, 194
 aether 134–5
 amor 129–30
 Avernus 125–7
 avius 141
 causidicus 142
 concilium 90
 cultura 132–3
 Curetes 134
 dementio 141
 etesiae 136
 exercitus 95
 fistula 133–4
 icio 101
 immundus 168
 incestus 144
 letum 136–9
 magnes 128
 metus 131
 necesse 145
 prester 127
 procudo 143–4
 quaero 143
 religio 140
 Scylla 134

- etymology (ancient) (*cont.*)
superstitio 140–1
viduus 80
 Eudemos of Rhodes 120
 Everson, Stephen 26
- Festus 80, 90, 131, 145, 149
 Friedländer, Paul 120–1, 129, 134
- Galen 128, 152, 188, 189
 Gorgias, teacher of Quintus Cicero 96
 Greek syntax
contendo + dative 151–2
facio + infinitive 186–7
habeo + infinitive 154–6
 infinitive of purpose 154
 influenced by Epicurus 155
 internal/adverbial accusatives 152–3, 161
 neuter plural adjective with defining genitive 153–4
- hapax legomena* 140, 162, 166, 173, 178, 182, 189
 Heraclitus 84, 127
 Hermarchus 19, 28, 30
 Herodotus 153
 Hesiod 12, 66, 149, 153, 162, 180, 182
 Hippocrates 152–3
 Homer 54, 93, 96, 134, 149–50, 152, 173, 180, 182
Homeric Hymns 181
Homeric scholia 149–50
 Hyginus 136
- illumination 6, 8, 12, 73, 78, 83–4, 91
 inclusive language 44–5, 158
 Isidore of Seville 90, 132, 133, 144
- linguistic anxiety 1, 2, 8, 155, 192
 linguistic convention 1, 15, 33, 34, 39, 42, 53, 55–6, 69, 124, 134
 linguistic naturalism 1, 19–26, 31–41, 54–5, 120, 124
 functional 16–17, 26, 31–2
 referential 16–17, 26, 31–4, 35, 41, 54
 loan shift 31, 89, 172, 174, 183–4, 187
 loanwords 134, 136, 155, 158, 161, 162
 pseudo-Longinus 96
 Lucilius 148–9, 164, 170, 175
- Magna Mater 160
 magnetism 63–4, 105, 128, 161
- Manilius 110–11, 160
 medical language 100, 152–3, 155–6
 Meleager of Gadara, *Garland* 10–11, 182
 Memmius 8, 11, 13–14, 78, 82, 108, 177, 193
 meteorology 186–7
 metonymy 61–4, 67–9, 141, 169
 military metaphor 78–82, 88–96, 101, 180
 ‘mother earth’ 64–9
 multiple-correspondence analogy 99
 myth 159–62, 169–70, 181–2
- Naevius 175–6
 Nigidius Figulus 136
- ontogeny recapitulates phylogeny 24–6
 Origen 16–17, 32
- Pacuvius 66, 107, 137, 141, 175–6, 177–8
 Parthenius of Nicaea 13
 Paulus Diaconus 137, 141, 143, 144
 perception 20, 22–3, 53, 57, 59, 77–8, 82–8, 121–2, 167–8, 183
 Philo of Alexandria 100
 Philodemus 27, 30–1, 39, 52, 98, 99, 113
 Plato 17, 26, 61, 83, 100, 109, 111, 116–19, 120
 Plautus 148–9, 160, 163, 169, 176, 189
 Pliny the Elder 126, 127, 157, 163, 168
 Plutarch 54, 56, 57, 81, 94, 186
 political metaphor 88–96, 112–15
 Pomponius, Lucius 175
 prayer, *see* sacral language
 preconceptions, *see* *προλήψεις*
 Priscian 6, 142, 157
 Proclus 16, 20–1, 26, 32
προλήψεις 21, 35–41, 51, 54–5, 58–60, 65, 102–3, 113–15
 properties 45, 47, 65, 113–15, 184–6
 Protagoras 154
 Prudentius 111
 Pyrrhus of Epirus 80–2
- Quintilian 47, 54
 on *egestas linguae* 5, 8
 on Greek names 157
 on metaphor 4, 59, 67

- rationality 1, 18–19, 24, 27–30, 42, 43,
 103, 106, 119–20, 124–6, 127, 131,
 140, 146, 193–4
 Reinhardt, Tobias 23–4, 154–5
 repetition 96–103, 128
 Roy, Sydnor 93
 Rutilius Lupus, Publius 96–7

 sacral language 149, 179–80
 Sedley, David 5, 29, 53–4, 56, 77, 83,
 100, 147–8, 156, 159, 172, 175–8
 Sergius Flavius 5
 Servius 126, 140, 151, 164
 Servius Auctus 135
 shipwreck 93–5
 Snyder, Jane 42, 125, 130
 soul, parts of 46–9, 185–6
 Stoicism 17, 40, 107, 108–9, 111,
 145, 161
 synecdoche 46–9
 συνειδότες 1, 2, 29–31, 51, 124, 140,
 192, 193
 syntactic onomatopoeia 147, 150

 Terence 67, 176
 terminology, Lucretian
 aditus, abitus 190
 adopinor 189–90
 animi iniectus 75–82, 183, 191, 194
 concilio 91
 concilium 88–91
 coniunctum 184–6
 consentio/consensus 187
 consisto/consto 186
 consocio 91
 conviso 183–4, 193
 deridiculus 189
 discidium 88–91
 dissilio 189
 eventum 184–6
 foedera 72–5, 91, 110–11, 194
 infinitus 187–8
 insensilis 188
 machina 194
 officium 112–15
 subiungo 48–9, 183
 utilitas 23–4
 Theocritus 151, 153–4
 Theophrastus 100
 tmesis 147–50
 early Latin 148–9
 Homeric 149–50
 Tryphon 52

 Varro of Reate 5, 6–7, 83, 90, 95, 125,
 126, 129, 131–2, 133–4, 137, 143,
 157, 164, 168
 Vitruvius 72

 Xenophon 127

 Zenodotus 181